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PART I.—ORIGINAL COMMUNICATIONS.

ARTICLE I.

A Paper on the Pathology and Treatment of Fever. Read before the Peoria District Medical Society, at their Fall Session, 1847. By A. G. Henry, M. D., of Pekin, Ill., and ordered to be published in the Illinois and Indiana Medical and Surgical Journal.

The Pathology of Fever has been so often and so ably discussed, from the days of Hippocrates down to the present time, that nothing *new* can reasonably be expected from me on this occasion.

It may be said with truth, that almost every conceivable condition of the system has been referred to by learned Medical and Pathological writers, as the proximate cause of that morbid condition which we denominate Fever; and of the various systems which enter into the formation of the Animal Economy—each one in their turn have been referred to as being the first affected in the series of morbid derangements. The Profession generally, and especially gentlemen of this Society, are too well acquainted with the various theories that have been put forth to the world in relation to the Pathology of Fever, to render it necessary for me to allude to them in detail; consequently,

I shall occupy the time allowed me on this occasion, in setting forth, in as brief and comprehensive a manner as possible, the Pathology which I have adopted, upon which to base *a practice* which I claim to have been the first in the Medical World to introduce to the notice of the Profession. But while I claim to have *originated the practice*, I would not be understood as claiming any originality on the score of theory, for all the views which I shall advance at this time upon the Pathology of Fever, I am indebted for, to those bright and shining lights to whom the world is so much indebted for the amelioration of human suffering, and to none more than to the immortal Cullen and Sydenham.

It may be thought strange by some, but it is nevertheless true, that I am indebted to *my practice* and observation for anything like clear and satisfactory views of the Pathology of Fever, rather than to my *theories* for my practice. This may be regarded as unphilosophical, but to my mind, it is the only way by which real and substantial improvements can be made in the practice of the healing art. What is more in the way of the introduction of new curative agents in the treatment of disease, by the Profession, than is the peculiar theory which may have been imbibed by the practitioner, of the disease, and the modus operandi of the remedy proposed? If they condemn the practice, nothing short of occular demonstration can induce a trial of the remedy; for no individual verbal authority can stand against the generally received opinions of the Faculty; and it is well that it is so as a general thing. But there should be exceptions to this rule. When the remedy comes recommended by responsible medical men, who have formed their opinions of its efficacy from actual observation, and in the absence of all countervailing testimony, coming from equally responsible sources, it does seem to us that they should so far be received with favor, as to induce a fair trial of them, without their authors being required to accompany them with a theory more satisfactory than any that may have been previously promulged. If this is required of me in the present instance, I greatly fear gentlemen of this Soci-

ety will never make a trial of my remedy. I am now satisfied, however, that I committed an error in presenting my new system of practice to the Profession, without some kind of a theory to support it, since the practice is in direct opposition to all the doctrines of the books, and contrary to the almost universal practice of the Profession.

I believe it may be said with truth, that all modern Pathologists agree that the Nervous System is the first to receive the impression of all those noxious influences that are supposed to act as remote or exciting causes in the production of fever. This, at least, is my doctrine. It is not my purpose to discuss the question of the relative importance of those insensible causes, which we call miasmatic influences, and the sensible causes, such as temperature, humidity, &c., in the production of the disease, but I content myself with the passing remark, that I attach far more importance to the latter than the former, for I am not disposed to look for *insensible* causes, when we have sensible ones enough to account for the phenomena.

If this, then, be true, it follows as a natural consequence, that the Nervous System is the first affected in the series of morbid derangements. This is most clearly proven in the first paroxysm of a common intermittent. The first thing complained of, is a general languor and debility dependent entirely upon functional derangement in this system. But let the paroxysms be repeated, and we have derangement in all the other systems. If we prevent a recurrence of the paroxysm by our quinine or other remedies, as a general thing, no sensible derangement is experienced in any other system—and my doctrine is, that quinine as a remedial agent in intermittents, acts directly upon the nervous centre. If it were not so, how shall we account for the fact, that it must be given until that peculiar effect is experienced in the head, on which it is conceded its periodic power is to be determined. If this effect is not produced, the paroxysm will return; and this fact is now becoming so well understood, that we regulate the quantity required in each individual case, by this effect—five grains

producing it in one case, while twenty may be required in another; but all we give after this ringing in the ear is produced, is worse than thrown away.

The Intermittent form of Fever, is, in point of fact, the only pure and unmixed form we have; all others partake more or less of other forms of disease. Here we have Fever in its purity, and here we also have Dr. Cullen's "spasm of the extreme vessels," most clearly exemplified.

In the Typhus form, as well as in all others, we have fever and inflammation combined, and which is entitled to the precedence, never has, and probably never will be, satisfactorily determined. We may have fever, says Dr. Thompson, without inflammation, but we can never have inflammation without fever. In all forms of this mixed disease, if the case proves fatal during the irritative stage of the inflammatory part of it, no trace is left behind for the Pathologist; but if they are long protracted cases, actual lesion is found, sometimes in the brain or spine, or both; sometimes in the stomach and bowels, and at other times in some other minor viscera—and these facts have led to interminable disputes as to the seat of the disease—which all goes to prove most conclusively to my mind, that all that class of disease denominated fever, have no other local habitation but in the nervous system. That learned and justly celebrated Pathologist, Brousais, contends that all fevers are nothing more nor less than cases of gastro-enteritis; but Dr. Clutterbreck denounces this doctrine, and contends most learnedly that they are all cases of inflammation of the membranes of the brain. Other locations have been contended for with equal ability, and in the West and South, in latter days, the palm has been awarded to that class of Pathologists who locate the disease in the liver, and the result has been, that in this region, that greatest and best of all remedies, except opium, when properly used, has been degraded as a nostrum in the hands of the regular faculty, to a level with lobelia and number-six, and done more to encourage empiricism than everything else besides.

All these various theories, in my opinion, have been more the productions of fancy than fact. The pathology which locates the disease in the brain, comes nearer the true doctrine than any other, for the reason that it comes nearer the nervous system than any other. But it comes no nearer, in point of fact, to locating the disease originally in the nervous system, than does the doctrine of Brousais, the only difference being in nearness of proximity to the nervous centre; and in the stage of irritation large doses of opium can be given with as much safety as when the inflammation is in any other part; and the remedy is more loudly called for, because of the greater danger of a fatal termination, if the disease be not arrested at the onset. The notion which so generally obtains among medical men, that opium cannot be given with safety, when the head is the seat of irritation, is, in my opinion, entirely erroneous. It is only when the irritation has produced inflammation that opium becomes inadmissible, *and this rule is just as applicable to affections of other parts, as to the brain.* The symptoms of coma which usually show themselves in the latter stages of fever, as a general thing, are the results of nervous exhaustion. In such cases, the only remedy to be relied upon with any degree of confidence, is full doses of opium.

Let us for a moment inquire what are the first symptoms which usher in an attack of fever? Are they not such as imply derangement in the nervous system? and is it not true that they continue some time before any other symptoms occur that indicate derangement in any other system? Does not the experience of every medical man testify, that one local affection after another follows the progress of fever, showing conclusively that they depend, or rather result from a continuance of the primary irritations in the system first affected. No one will contend that derangement in the secretory system is the first in the series, neither is it found in the heart or the arteries. They are both secondary affections, evidently caused by the continuance of the primary irritation, wherever you may please to locate it.

If this be true, what then are the indications of cure? Should they be remedies that act most directly upon the secondary affections? or should they not be directed to the original affection?

What do we do when called to a patient laboring under disease produced by swallowing poison? Why we at once remove the irritating matter from the stomach. Instead of adopting this course, suppose we should allow the irritating cause to remain in the stomach, and set about trying to arrest the progress of the inflammation? What would be the result? Why, the inflammation would be increased more rapidly than we could subdue by the most vigorous application of our remedies.

Now I contend that the same principle applies to the treatment of fever. If we overlook the irritation in the nervous system, and direct our remedies to the secondary affections, as a general thing, every symptom becomes aggravated hour after hour, until our patient dies, or until we produce in the system, a new disease by our remedies, which the efforts of nature are competent to remove.

It is a well established law of the animal economy, that no two diseased actions can exist in the system at the same time, and it will not be denied that mercury cures fever by creating the specific action of the remedy; but when the febrile action is well established, it is very often impossible to substitute the action of our remedy, and we lose our patient. But if we do ultimately effect our object, it is at the expense of an immense amount of suffering, and a long, protracted confinement.

The Pathology which I contend for, and the Practice based upon it, saves to the patient this suffering, avoids the danger of a fatal termination, and subdues the disease nine times in ten, in the course of eight and forty hours.

But it is entirely unnecessary to indulge in theoretical speculations to prove that my views of Pathology are, in the main, correct, for the results of the Practice, about which there can be no mistake, most fully confirm them.

What is the great and leading indication in the treatment

of fever? Is it not to subdue the preternatural heat on the surface, and has not a general perspiration ever been regarded as a highly favorable indication of cure? and can this be accomplished in any other way, than by the use of remedies that are calculated to allay the irritation upon which the "spasm of the extreme vessels" depend? And what class of remedies are resorted to to secure this desirable result? Are they not sedative? What is ice, but the most powerful sedative in nature, and does not the abstraction of blood produce a sedative effect, and are not these remedies generally resorted to for the purpose of subduing high arterial action, when no local afflictions forbid their use. Upon what system do sedatives act most directly? *Is it not on the nervous system?* If this be so, I insist that it is proof conclusive, that fever has its seat in that system. In the onset of fever we have no visible derangement in the Secretory System, and we sometimes have forms of fever, that continue for days and weeks without any evidence of derangement except in this system, and the heart and arteries, but they are certain to show themselves in time, unless the fever is subdued.

There is a great difference in fevers as relates to the extent of derangement in the nerves. In the Typhoid type, the disease is apparently confined to the nervous tissues. We have but little other functional derangement for many days, and the nervous symptoms predominate throughout the progress of the disease. This is no doubt attributable to the fact, that actual lesion takes place in some part of the spinal column early in the progress of the fever; while in other forms of fever, the irritation is located in some one or all of the other systems. We have forms of fever when the lungs are the seat of irritation; others when the stomach and bowels are most prominently affected—and we have a form of fever in which we have cerebral, thoracic, and abdominal affection, showing themselves simultaneously very soon after the first symptoms of nervous irritation are perceptible, and this form of fever will prove fatal nine times out of ten under the best plan of treatment recom-

mended by the books. The Congestive forms of fever, now so common in this region, belong to this class of disease, and which I shall notice more fully before I am done.

In cases of this character, I suppose the impressions are made upon the nervous system in the same way that they are made in the less rapid and malignant forms, but owing to an unnatural degree of irritability in the nerves of the parts affected, we have a sudden rush of blood to the head, lungs, stomach, and bowels, or all together, which produces violent functional derangement in the organs, which speedily destroys life unless removed. In such cases, no trace of disease is left to guide the Pathologist, no perceptible lesion is found in any of the tissues, to account for the phenomena. That great derangement existed in the parts, no one can question, and that it is to be looked for in the nervous tissues is rendered highly probable from the following anatomical and physiological facts, that have been well established by Doctor Abercrombie in his researches into the diseases of the substance of the brain. He has shown that actual disorganization may take place without changing the appearance of the part materially. None of the appearances which are found in similar conditions of other tissues, are to be found in the nervous. In all the variety of inflammations we find ample traces of the disease to account for all the phenomena. Not so in fever; and yet the difference in the symptoms characterizing the two forms of disease, are more imaginary than real. In fever, we have general uneasiness, while in inflammation we have *pain* in particular parts, but in both we have increased heat and arterial excitement. Very soon, however, in fever, we have pain, and sometimes tumefaction in particular parts, and when this occurs, where are we to look for the distinction, except in the post-mortem appearances; and not even here in all cases, for where the patient lives long enough, we find actual lesion in the parts affected.

My doctrine is, that the difference consists mainly and solely in the fact, that in fever we have irritation and le-

sion in the nervous tissue, while in inflammations we have them in the other tissues. The morbid impressions in the one case are tangible to the senses, while in the other they are not.

The immortal Doctor Bell has demonstrated that the great bulk of the nervous tissue is destitute of sensation, consequently, in fever without local determinations, we have no pain, as we have in inflammations, but we do have what amounts to the same thing, a general uneasiness more distressing than actual pain. The nerves of nutrition and motion being destitute of sensation, the functions dependent upon them are affected imperceptibly, and hence the conclusion of some, that the diseased action originally exists in these functions. The nervous system being the most important of all others in the animal economy, is it not reasonable to conclude that it is more liable to disease than any other; and since all the functions depend upon it for their healthy action, is it strange that general disturbance should follow as a consequence of diseased action in the nervous system? a result we never fail to find in fever.

Having established (at least to my own satisfaction,) that fever is the result of disease in the nervous system, and that all other derangements are to be regarded as secondary affections, I shall proceed briefly to give my views of the practice which ought to be pursued in the commencement of the attack, and I know of no way by which I can make myself understood more clearly, than by reporting one or more cases (out of the hundreds I have treated on this plan, with the same uniform success,) of the different forms of fever found in this region of country, during the last ten years.

William S———, laborer, was attacked with Fever in February last. I saw him a few hours after he took to his bed at about 9 o'clock in the evening. He had been complaining of languor and debility during the day, but did not leave his work until about 4 in the evening, when he was suddenly seized with violent rigors, and so great was the muscular prostration, that he was unable to stand without

help. He complained of general soreness over the whole surface. Pulse over 140, full, but easily compressed, with quick breathing, interrupted occasionally with a long heavy sigh; skin hot, but not dry. Complained of no pain except a slight pain in the head. Could fetch a full inspiration without causing pain. I opened a vein in the arm, more for the purpose of seeing the effect it would have upon the breathing, than from any expectation that it would relieve the symptoms; and after taking about 16 ounces, the symptoms were evidently aggravated. As usual in such cases, I gave him five grains of quinine, with five pills composed of one grain of opium and three of calomel, each, and left a powder composed of five grains of quinine with three of opium, to be given in six hours. I saw him two hours after, and found him sweating freely; pulse about 100, strong and full; breathing natural, and said he felt entirely well. Saw him the next morning at 8; had taken the powder as directed, and sweat freely during the night; pulse natural, pain and soreness gone; had not slept much during the night. I now gave him salts and senna, which operated freely in three or four hours, when I repeated the opium and quinine in doses of three grs. of each every six hours, until three doses had been taken. In the evening, found him sitting by the fire comparatively well, but complained of feeling extremely weak. Directed him to keep in doors for two days and live on soups, tea and toast, and at the end of that time he was at his work again as though nothing had happened. Some 10 other cases of this kind were treated in this way, except the bleeding, with the same results in the course of 8 or 10 days, during which time, 5 cases proved fatal under the evacuant plan of treatment in other hands in 48 hours, becoming entirely insensible after 20 or 24 hours from the commencement of the attack. The only patient I lost, was a child 5 years old. In this case, I gave a dose of Ipecac to relieve the difficult and rapid breathing. I returned in two or three hours after, and found my patient beyond the reach of remedy, and she died in 19 hours from the first symptom of

indisposition, which was a slight chill, followed with fever and rapid breathing.

I regarded these cases as most violent and malignant forms of Typhus Fever, or, as they are sometimes called, cases of Typhoid Pneumonia, Cold Plague, Winter Fever, &c.,—differing only from the milder forms of Typhus, in the fact of being more rapid in their progress in consequence of the nervous system being as it were, *overwhelmed by the force of the exciting cause.* Hence the necessity or rather the advantage of combining the quinine with the opium and calomel. The quinine might have been omitted with safety, but in such cases I prefer using it. The calomel I know can be dispensed with without lessening the efficacy of the treatment, as I have demonstrated over and over again in the treatment of this form of fever, and I only give it as a matter of convenience, for its cathartic effect. The following case is in point. I would remark here, that I never resort to the quinine except in the malignant forms of the disease.

I was called to see Mrs. H———, who had recently lost in her family, a nephew and a daughter, after a lingering illness of what the doctor called the winter fever, both of which had been treated on the mercurial plan. She had been confined to her bed for five days, but had taken nothing but oil and pills of some kind. There was every symptom of Typhus Fever present, with slight affection of the lungs. She begged that I would not give her calomel, and not regarding it material, I promised I would not. I accordingly left her two powders of 4 grains of opium each, the second to be given eight hours after the first, and to drink hot sage tea freely until sweating was produced. Saw her the next day, much improved in appearance, and said she felt much better—had perspired freely all night. Directed a dose of oil and four grains of opium at bed time, with *three* grains eight hours after, with the same effect as before. Found her the next day greatly improved, and entirely free from fever. Repeated the oil, and left three grains of opium to be given at bed time. Did not see her

again for three days. Found her sitting up free from fever, but very much troubled with a dry cough. Applied a blister to the chest, and left her the brown mixture. She recovered steadily but slowly, the cough not leaving her for ten or twelve days. Several other cases occurred in the same neighborhood, which I treated with opium in the same way, with the addition of the calomel, all of which were convalescent in forty-eight hours after the first visit, and no case was seen after the third visit.

Five cases, treated by other Physicians, proved fatal in the neighborhood that fall and winter (last winter). I am certain that I prescribed for two-thirds of all the cases that occurred, without losing a single case of fever in the vicinity.

I have now given a case of the mild, and most malignant forms of *Western* Typhus Fever. I now propose to give, for the purpose of more clearly illustrating my system of practice, one case of Congestive Intermittent, and one of common Remittent.

Some three weeks since I was called to see Mrs. S——. She had been taken the evening before with what she supposed to be a simple chill and fever. The chill had lasted some six or eight hours, accompanied, as she expressed it, "with a burning fever, and a feeling of freezing all the time," with the sensation of a loaded waggon running over her breast. She was lying in bed comparatively comfortable, and free from fever as she supposed, but expressed herself as alarmed for the consequence of the next chill, which she was expecting in the course of two hours. On feeling her pulse I readily detected that peculiar, but indescribable pulse, always found during the intermission in this form of disease. She said she felt tired, and when she attempted to sit up, she became sick at the stomach. I was satisfied from her general appearance that the next paroxysm would prove fatal, unless prevented or greatly mitigated, and there was no time to be lost. Accordingly, I administered in a little coffee, five grains of quinine with five of opium, and left five more of quinine with two of

opium, to be given in six hours, directing her to drink hot tea freely until she got into a free perspiration, but before leaving the house she complained of feeling cold, and commenced breathing quick and laboriously. On going to the bed side, I found her hands cold; pulse small and rapid. The powder had only been swallowed some fifteen minutes, not long enough to produce any sensible effect upon the system, still I had every confidence that it would act in time to moderate the paroxysm. I applied a strong mustard poultice to the stomach, which acted promptly, when the breathing improved, but by this time the powder began to act. The pulse became slower and more distinct, drops of perspiration showed themselves upon the forehead, and in one hour from the time the dose was administered, she was perspiring freely, and said she felt better than she had for two days before; and being satisfied that she was safe, I retired for the night, repeating the direction to have the second powder given at the end of the six hours. The next morning I found her entirely comfortable—had not slept much during the night, but felt disposed to sleep then. I directed a dose of oil, which operated in two hours very freely, when I repeated the quinine in five grain doses without the opium, and left my patient convalescent. The next day she was up doing her work.

I am convinced that if the dose had been delayed one hour longer in this case, the paroxysm would have proved fatal, for I am satisfied from experience, that but little can be effected by way of mitigating the paroxysm after it is once fully formed, by internal remedies. If there is vigor enough in the vis-medicatrix natura to throw it off, you can save your patient by rightly improving the remission. I say *remission*, because I am satisfied that we have no *intermission*, such as we have in our ordinary intermittents, in this malignant form of fever, and I am equally satisfied that nothing but sedative doses of opium or quinine will save our patients—and of the two I prefer opium, for five grain doses of it prevents the paroxysm certainly, while the largest doses of quinine somtimes fail, particularly where

the stomach is inclined to be irritable, which is often the case; and for the further reason, that the opium exerts no deleterious influence upon the system, which cannot be said with truth of 10 or 15 grain doses of quinine. From five to six grain doses of quinine, will, for all time to come, be my maximum dose. If I desire a sedative effect, I can procure it with more certainty with opium in four or six grain doses; *which I contend is the smallest dose that can be relied upon for the full sedative effect required for a case of fever.* The reason why so little benefit has been obtained from opium in the treatment of fever, heretofore, is to be attributed to the fact of its never having been given in full doses until given by myself.

When Dr. Cartwright, of Natchez, Mississippi, first proposed ten grain doses of quinine, the Medical World were as much shocked with its absurdity, as they now possibly can be at the dose of opium which I recommend; and it is but recently that it is conceded that it can be given in ten grain doses with comparative impunity, and to the extent of 40 and 50 grains in malignant forms of disease, without being destructive to life—and it is now universally admitted, that we can obtain two opposite effects by regulating the quantity. If we give it in one grain doses, repeated every hour, in a paroxysm of fever, we aggravate all the symptoms, and in all probability, before ten grains shall have been given, fatal congestion of the brain will have been produced. But if we were to give the ten grains at a dose, in precisely a similar case, none of these consequences will follow, but on the contrary we shall obtain full relief to all the symptoms by subduing the fever. This principle is more particularly applicable to opium than to quinine. Medical writers have long suspected that opium had an action different from that which had been usually attributed to it, and among them I would name the justly celebrated Pereira. [See his Materia Medica under the head of opium.] But no one, before myself, has had the temerity, as it has been called, to demonstrate the truth of the proposition by actual experiment upon the human system, in the treatment

of a form of disease that occupies four-fifths of the time and talent of the Medical World; but when the practice shall take the place of the present abused mercurial system, (as it is bound, sooner or later, to do,) there will be a saving of thousands of lives, and an incalculable amount of human suffering.

But the great obstacle in the way of its adoption by the Profession, as I have said before, is the dread of fatal congestion of the brain, if given in such large doses. One says he has known fatal congestion of the brain, to follow the use of *one grain*, repeated once in two or three hours, until four or five grains had been taken; and they exclaim with uplifted hands and eyes: My God! if such results follow from one grain doses, what, but almost instant death, could be expected from a five grain dose. My friend, Dr. Golliday, in his learned "critique" upon a communication of mine, published in the Illinois and Indiana Medical Journal, some year since, on the treatment of fevers and inflammations without mercury, in which I urge the use of from 4 to 6 grains of opium, quotes various authorities to prove that my practice is not admissible in inflammatory affections, although it can be nowhere shown "in the writings of Dr. Christison, Dr. Sobernheim, Dr. Rankin, Dr. Williams, or Dr. Periera," that they had ever used a four or five grain dose of opium in their lives, in the treatment of the diseases alluded to, in which they condemn its use, when I claim to have given it hundreds of times in these doses with the happiest effects.

Now I would ask the Doctor how he can give the preference to their authority based on mere theory, without calling in question my veracity, a thing which I presume he had no intention of doing.

The Doctor does not seem to be aware of the fact, that I contend as strenuously as any other man, that anything short of a *full sedative dose*, (and by this I mean from four to six grains,) will as a general thing, do positive injury; and in that very communication which he very properly took the liberty of criticising, I laid down the proposition,

that a two grain dose repeated once in two or three hours, was almost sure to do mischief, when a five grain dose given once or twice in twenty-four hours, would be productive of great benefit. As in the case with quinine, so with opium. Give it in one grain doses in a paroxysm of fever, every hour until four or five grains have been given, and the chances are two to one that you will greatly injure, if you do not destroy your patient. But give it in one dose, and none of these unpleasant consequences follow.

I have already extended my remarks far beyond anything I had intended in the outset. One word in relation to remittents, and I am done.

John R———, a German laborer, recently arrived in the country, was taken down the first of September with all the symptoms of a common bilious remittent. When I saw him he had been in bed 24 hours with high fever, hot, dry skin, great thirst, and violent pain in the head and back. I found him the second day about noon, with all these symptoms aggravated; pulse 120, full and strong, tongue dry and glossy, and very red at the point. Bowels had not been moved for thirty-six hours. I gave him an emetic of Ipecac in broken doses, at long intervals, say half an hour, for the purpose of securing a full emetico-cathartic effect. Saw him four hours after and found that his stomach and bowels had been thoroughly evacuated, but with little relief to the symptoms. I now gave him five pills composed of opii i grain, calomel iii grains each; directed him to drink freely of hot tea, and left him for the night with every confidence of finding him in the morning entirely relieved. I found him as anticipated, free from fever, the pain in the head and back entirely gone, tongue moist and heavily coated with a loose, white fur. Said he got easy about two hours after taking the pills, and had sweat freely all night, and expressed himself as feeling almost well. Left him three five grain doses of quinine, to be taken once in four hours during the day, and to drink as much water gruel as he pleased. Found him in the evening down at the table eating his supper; said he was

very hungry, and felt entirely well, "except a little weak." His bowels had been freely moved during the day by the calomel. On the 4th of September he was again at his work as usual.

I have selected this case from among many others treated in the same way, for the reason that he complained more of his head and back than any other case I have treated this season, by way of showing Dr. Golliday and others, that a five grain dose of opium can be given, not only with safety, but with decided advantage, even when there was "strong symptoms of congestion of blood," and that too, to the brain and spinal column.

Now, supposing this case had been treated upon the usual plan; bleed first, give the emetic and the calomel at night without opium, does any gentleman suppose that he would have passed a comfortable night, been entirely free from fever in the morning, and at his work the next day? Would it not have been more likely that he would have spent a distressing night, with a temporary intermission in the morning, to be followed with an exacerbation in the evening, and this repeated day after day until mercurial action was established, or he beyond the reach of all remedy. Such has been the result of similar cases treated on the mercurial plan, at the *same time, and in the same neighborhood*, and such would have been the result had he fallen under my treatment ten years ago.

Do not such results go to prove beyond all question, that large doses of opium possess a power in the treatment of fever, greater than any other known remedy. The remedy which I once regarded as my sheet anchor, I can now dispense with entirely without material detriment to the treatment. But I do not propose to throw it aside; on the contrary, I still regard it as one of the best and most convenient *purgatives* in the whole materials of medicine. I only ask that it shall no longer be relied upon as the main remedy in the treatment of fever; for the reason that we have, in large doses of opium, one better adapted to meet the indications of cure.

In conclusion let me caution those of my professional brethren who would give the remedy a trial, not to delay a resort to it *until they have exhausted every other known remedy*, and when the case is beyond the reach of human agency. If you use it at all, use it in the early stage as I have directed, and my word for it you will not find cause to regret it.

ARTICLE II.

Fibrinous Concretions in the Ventricles of the Heart, extending into the Pulmonary Artery and Aorta, with extensive hepatization of both lungs. By G. SPRAGUE, M. D., of Kalamazoo, Mich.

Some ten days since (Oct. 23,) I was summoned to visit Hydenburgh, about a mile from this place, by occupation a farmer, æt. 36. The patient was a stranger to me, having settled in this vicinity withing the past year, from the State of New York.

I learned by the wife of the patient, that he had been for some fifteen years, much troubled with nervous symptoms; but was repeatedly assured that no cough or other indication of chronic lung disease, had ever manifested itself.

It seemed that on the afternoon of Oct. 20, Mr. H. was in usual health, and during that afternoon underwent rather severe bodily exertion. Near daylight of the following morning he had occasion to get out of bed when in a state of cutaneous moisture. He was immediately taken chilly, which state continued during the forenoon of the 21st. The afternoon of the same day was ushered in by some fever, pain in the chest, very laborious and rapid respiration. On the morning of the 22d, there seemed some abatement of pain, &c., but in the afternoon of the same day, there was a return of all the distressing symptoms in an increased degree. It was at two o'clock of the following day, (23d,) that I was requested to visit the case. I found the patient

to be a tall spare man, in whom the nervous and bilious temperaments were predominant. Countenance anxious; restless and impatient. Skin hot and dry; pulse full, incompressible and twisting. Percussion dull throughout the chest; respiratory murmur hardly perceptible; breathing very rapid and laborious; complained of pain in the head and left lung, near the spine, rather laucinating upon bodily motion; expectorated a small amount of sputa, a little tinged with blood. From a free orifice, I abstracted xxiv℥ of blood, which presented but little of the buffy coat. As the blood flowed, the skin became cool and moist, the pain ceased, the pulse came down to 90, soft and compressible. Breathing less laborious, and not so frequent. I followed the venesection by an Armstrong opiate, with as much ipecac as the stomach would retain, which was repeated in two hours. This had the desired effect, viz: to prevent reaction. The skin remaining moist, expectoration easy, though scant, and the pain not returning during the day.

He was put upon the sub. mur., combined with the compound extract of colocynth, to be given *pro re nata*—as also a mixture of Dover's powders, ipecac, and tartar. ant.; enough given each hour to induce nausea. These means were kept up during the afternoon and night of the 23*d*. On the following morning found my patient rather quiet, pulse soft and compressible; skin moist; expectorated a small amount of tenaceous sputa, a little tinged with blood; some pain in the chest, though slight. Directed a mustard plaster upon the back, and applied a blister upon the front of the chest, to the right of the heart—same prescriptions continued as before sufficient to keep the bowels loose, skin moist, &c. Alvine evacuations, bilious. Visited again on the evening of the same day, found my patient rather restless; skin and conjunctiva becoming very much charged with bile. Pulse still soft and compressible; breathing more hurried and difficult. Similar prescriptions were continued, to the foregoing, sufficient to keep up their several effects through the 25th. On visiting my patient on the

26th, found no yielding of the deposite of bile in the skin and conjunctiva; more restless, delirious; pulse occasionally intermitting and unsteady in its beat; cough a little tightened; skin still moist. He remained in this condition through the 26th, becoming more delirious, asserting that he should expire when morning came. About ten o'clock at night, I was requested to visit the patient. Found a gradual wasting of the vital forces. At this time, Dr. White, (recently of the army,) was called in council, who judged, as I had been induced to do, from the voice of the patient, that there was probably some chronic disease of the lungs of long standing. We left him with a mild prescription, for the night. At daylight of the following morning, after having become somewhat composed, he expired.

Autopsie twenty-eight hours after death. Present, Drs. White, Allen, Howard, and myself.—Body not much wasted, skin and eyes very yellow. Upon opening the thorax, there was found firm adhesions throughout the chest, between the two pleuræ. Pericardium contained some five or six ounces of fluid. Heart considerably hypertrophied, though firm in texture, and presenting in its external appearance considerable enlargement of its blood vessels. Upon opening the right ventricle, it was found to contain two fibrinous concretions. The base of one of them was about three-fourths of an inch in width, and one-eighth in thickness, gradually narrowing down to a point, and extending itself into the pulmonary artery. The length of this formation was about six inches. It had a fimbriated extremity, made up of firm blood vessels distinct from each other. Its base was attached very firmly by distinct blood vessels and fibres, to the columnæ comæ. The second formation found in the same ventricle, arose by two bases, in the same manner as the first, each base being three-fourths of an inch in width, and one eighth in thickness, coming together at the entrance of the pulmonary artery, giving off a branch three eighths of an inch in width, reaching the bifurcation, and giving a branch to the right and left, of an inch in length, with fimbriated ends, as the

other. Upon opening the left ventricle, a deposit of the same kind was found, with as distinct an organization, having a base one inch in width and one fourth in thickness, with several extremities having fimbriated ends, and reaching about four inches from its origin into the aorta. There was also a second formation commencing to organize in the same cavity of considerable size, though imperfect. Their texture is as firm as muscle, and the fibres as distinctly marked, though in color they are quite pale. Their entire weight was nine drachms. The entire body of the lungs were found engorged and hepatized, presenting much the appearance of diseased liver. In several places small abscesses were found, containing thin pus. The liver and spleen were a little engorged and enlarged, though presenting no very striking marks of disease. The gall bladder was distended with vitriated bile.

Dunglison records a case somewhat similar to the foregoing, though more limited in extent, and producing the same effects upon the lungs as were here produced, though the hepatization was confined to one lung. Under fibrinous concretions in the heart, that learned author remarks: In a case of great impediment to the circulation of the blood through the lungs, which fell under the author's care, and in which, on application of the stethescope, the respiratory murmur was totally inaudible in any part of the right lung, whilst it was distinct in the left; and percussion on the right side gave the dull, heavy sound of a solid mass—the sound of the left side of the heart was so loud as to countenance the idea of dilatation of the cavity with thinness of the parietes—whilst the sound on the right side was indistinct, but there was a peculiar *bruit*, appearing, as it were, compounded of the *bruit de soufflet*, or bellows sound, with the *freemissement cataive*, and evidently indicating the existence of some impediment to the passage of the blood through the right heart. On the dissection of this case, the right lung was found completely hepatized throughout its whole extent, whilst the left lung was nearly healthy. On taking out the heart, the right pulmonary ar-

tery was found completely plugged up by a same organized mass, having the appearance of muscle, extending through the semilunar valves, and attaching itself strongly to the columnæ comae of the right ventricle. The same author quotes the following from Hughes: Occasionally, the polyphoid and polypiform concretions produce death by blocking up one of the apertures of the heart. Watson, in his Practice of Physic, speaks of mechanical impediments to the passage of blood from the heart, being in many cases of a permanent character, and causing hypertrophy of the ventricles, but does not specify as to what these impediments are. We look in vain in Latham's clinic of the diseases of the heart, for any account of such formations. Professor Dunglison again says, (Cyclop. of Practical Medicine,) at a late clinical lecture at the Philadelphia Hospital, the writer exhibited to the class a semi-organized fibrinous concretion in the right ventricle, the existence of which he foretold before dissolution, owing to the sound of impeded transmission of blood through the heart, in a person dying of pleura pneumonia—and a similar case occurring in his service in the Baltimore Infirmary, was published by Dr. McNeal, in the American Medical Intelligencer, July 1st, 1837. Armstrong says: It was an opinion that polypi formed about the heart. In many bodies you will find strings of coagulable lymph hanging about the ventricles or auricles, or in the pulmonary artery or veins; they are formed during the agonies of death.

That the formations in the case here reported, did not take place in this manner, is very certain. Their firm, well developed, fibrinous organization, their distinct origin by blood vessels, and the distinctness and tenacity of the vascular, fimbriated extremities, as well as the condition of the lungs, all go to prove that a long period only had been sufficient to produce such a condition.

ARTICLE III.

Various Forms of Intermittent Diseases. By Dr. W. H. MARTIN, of Rushville, Indiana.

The Physicians of our State, and probably of the whole Mississippi Valley, are more frequently called to prescribe for diseases of an Intermittent character than for any other form. That they all have their origin in a malarial cause, is generally conceded. That the same remedies are equally efficacious in all the multifarious cases presented to our care, our almost daily experience fully testifies. That there are cases, however, of this character, enveloped in such obscurity, and having such anomalous complications as to produce a conflict of opinions in the minds of many, particularly the juniors of the profession when called upon to treat them, cannot be doubted. If there be such, the relation of the following cases may not be uninteresting.

Case 1.—Mr. S. B., aged 54, of strong temperament and good constitution, arose early on the morning of the 5th of June, in good health, and after having taken his usual stroll on his farm, returned to the house and was attacked suddenly with pain. Being his family physician, he sent for me immediately. Upon enquiry I found that there had been no previous indisposition. The pain seemed to follow the course of the left ureter, and was very severe, of a persistent character, yet there were times when it was much more pungent and laucinating. The inclination to micturate was constant, and the urine passed off *guttatum*. No tenderness on pressure any where; extremities rather cool; pulse somewhat oppressed and about 65; tongue slightly coated.

Gave him sub. mur. hyd 20 grains,
pulv. opii 3 " and placed

him in a warm hip bath, in which he remained about thirty minutes, much to his relief. He was then placed in bed, sinapisms put to his ankles, a dose of ol. ricini ordered in three hours, accompanied by forty drops of laudanum should there be a continuance of pain, and injections of a

mild solution of mur. soda, if the oil did not operate in due time. *June 6th.*—Called to see my patient early, and found that the pain had entirely subsided in three hours after the time of attack on yesterday, and he had remained easy and felt entirely well until this morning, when there was a return of the pain accompanied by some chillness. He had taken, previous to my arrival this morning, 2 grains sulph. morphine, which I left during my visit yesterday, and was immediately placed in the warm bath. I remained with him about one hour, during which time the pain left him, and there came up slight fever. The medicine on yesterday produced copious alvine dejections of a good character.

Left fifteen grains quinine in five powders, to be commenced at 6 o'clock in the evening, and repeated every two hours until all were taken.

June 7th.—No return of pain. Cured.

Case 2.—Mr. B. T., aged 49. Habits irregular. Constitution pretty good. Was brought to our office in a waggon on the 10th of July, complaining of an excrutiating pain in the left shoulder, which he said made its attack on the evening previous. Upon examining the shoulder we found it somewhat swelled over the joint. Complained of soreness upon being handled, with entire inability to raise the arm. Would not submit to venesec.

Gave him a liniment composed of spirits of ammonia, terebinth. and ol. lini, to be bathed freely over the joint.

Pulv. opii	2	grains,
Ipecac,	1	"
Nit. Pot.	5	" to be repeated every

two and a half hours until relieved. Then to take an active purge of sulph. magnesia and senna.

Saw him again on the evening of the 12th. During the whole of yesterday, and until four o'clock this evening, the patient was entirely easy, but at this hour there was a return of all his former suffering. Put a warm hop poultice over the painful joint, and again placed him under the influence of anodynes, to be followed, after the subsidence of pain, with a dose of ol. ricini and spirits trerebinth. At six

o'clock on the morning of the 14th, in anticipation of the evening paroxysm, he took three grains quinine, and repeated it every two hours until he had taken fifteen grains.

July 15.—Patient had no return of pain yesterday, and up to this time remains well.

Case 3.—On the 6th of May last, I was called in consultation by a neighboring physician to see a man who had suffered a short time previous with an attack of continued fever. but who had been discharged, some eight or nine days previously, by his physician as cured.

At the time of my being called in, he was afflicted with severe vomiting and purging, which I was informed had occurred on the two evenings previous, each paroxysm coming on about the same time, and leaving the patient easy but much prostrated. During these attacks the extremities were of an icy coldness. Upon the present occasion, we placed sinapisms on his ankles, wrists, and along the course of the spine. A flannel was wet with hot spirits of camphor, and laid on the epigastrum, and hot brandy toddy was occasionally administered. Under this treatment, the paroxysm was much shortened, and the supervening prostration lessened. He was then placed under full doses of quinine, from which time his convalescence was rapid. We have had a number of cases of this character, during the present season, every one of which yielded to the quinine treatment. Bleeding, blistering, sweating, and purging, with their multitude of inconveniences, in the treatment of a great majority of our summer and autumnal diseases, are fast becoming "things that were," much to the comfort and safety of our patients.

ARTICLE IV.

Salivation by Chemical action in the Stomach. By J. S. JONES, M. D., of Covington, Ind.

Braithwait, in his *Retrospect*, No. I, Part 1st, page 45, notices, what the *London Lancet* calls an ingenious explan-

ation, by Mr. Snow, in a discussion in the Westminster Medical Society, of the occurrence of salivation by mercury more readily at one time than at another. As will be recollected, he supposed it to be "the result of the presence of acid in the first passages, converting the blue mass, or the calomel, into corrosive sublimate." He came to the conclusion, by often seeing patients salivated by taking a small portion, at the same time with mixtures containing sulphuric acid.

My intention is only to inquire, whether Mr. Snow's position merits thought; and if it does—whether sulph. acid is indispensible in the chemical process?

Although the British Colleges adhere to the old nomenclature, muriate and sub. mur., since not only our best chemists, but the decision of the U. S. Convention in the revision of our Pharmacopœia, in 1830, justifies our calling them the proto and bi chlorides, we will use these terms.

It is well known that chlorine and mercury, at common temperatures, combine with one equivalent of each, producing the proto-chloride, or calomel, but when heated they combine two to one, forming the bi-chloride (Beck's Chem., page 365). Knowing full well that all the juices of the stomach are saturated with chloride of sodium, the question arises, is the heat of the stomach sufficient to cause a union of two parts of chlorine to one part of mercury? If so, we must conclude that mercury acts only as a bi-chloride, and that unpleasant effects depend on the speedy chemical union—that when it is slow, injury is not as likely to be produced.

Sulphuric acid may facilitate the operation, by combining with the soda, forming sulph. soda, and leaving the chlorine free for a more ready combination with the mercury; but without the help of this acid, we are aware that muriate of sodium, mercury, and caloric, will generate corrosive sublimate—then why not in the stomach as well as in the crucible. But what is it that facilitates or retards the chemical process, at one time affording enough to produce all the unhappy effects, and at another time scarcely

being perceptible, regardless, too, of the use of sulphuric acid mixtures, as observation shows. Does it depend on the quantity of muriatic acid in the stomach at the time, or can there be a better cause assigned?

Mr. Snow considered the remedy to be in the use of the bi-chloride at once, and in suitable quantities.

If blue mass or calomel is preferable, can they not be combined with the proto-chloride of tin; chlorine having a stronger affinity for tin than mercury, bi-chloride of tin will be the first production, using up the chlorine, and thus preventing a combination with the mercury. The points in question, are:

1st. Can chloride of sodium and mercury remain together in the stomach, without producing the chloride of mercury?

2nd. Is the heat of the stomach sufficient to produce the bi-chloride?

3d. What facilitates or retards the process?

4th. What would be the effect of proto-chloride of tin used in connection with mercury?

If the subject merits attention, we hope to hear from the profession respecting it.

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Our leisure has not been sufficient to permit us to examine the subject as we would like, before attempting to answer the queries of our correspondent. We accordingly lay his article before our readers, that they may acquaint us with any facts in their possession, which may bear upon the subject, and hope that we may, by our next number, find time to institute some experiments which may perhaps enlighten us on the points proposed. J. V. Z. B.

ARTICLE V.

DUBUQUE, IOWA, Oct. 2, 1847.

MR. EDITOR:

Dear Sir,—The following case is at your disposal. A boy, 7 years old, was brought to me by his mother,

three weeks ago, affected with amaurosis. It was thought advisable to have removed four much decayed molar teeth, when the lad, with his mother, accompanied me to the office of Dr. Lee, dentist, for the purpose. After much labor, the fangs of two teeth were skilfully removed—the patient displaying the utmost fortitude and self-possession.

This done, he entered his solemn protest against all further proceeding, and stoutly resisted argument, persuasion, and force. I proposed to control the case with the *letheon*, which was approved by the dentist, and by my partner, Dr. Sprague. A sponge, saturated with ether, was held to the nose in such a manner as to admit a due amount of atmospheric air. *To this he opposed all his strength*, but in about two minutes became quiet, then burst into an idiotic laugh, and soon passed into a tranquil sleep. During the repose, the other teeth were extracted, without the least manifestation of pain or consciousness—the sponge having been re-applied to check returning sensibility.

A few minutes after, he walked to our office, free from the effects of the gas, and ignorant of the latter part of the operation, which lasted ten or fifteen minutes. The letheon used was that commonly found in shops.

ASA HORR.

ARTICLE VI.

MESSRS. EDITORS:—The following is a brief abstract of the proceedings of the Rock River Medical Society, at its last session, which you are at liberty to publish if you please. Owing to the inclement weather and the bad state of the roads, the meeting was not quite so large as usual, but still the exercises throughout, were highly interesting, and the members manifested a noble zeal in sustaining the interests of the medical profession at the West. The hour of our meeting was too brief. Such meetings, with kindred spirits, who have common interests, are always too short. They are to the toil worn physician what the fragrant oasis is to the weary traveller.

Pursuant to adjournment, the Rock River Medical Society held its semi-annual meeting, at Beloit, W. T., 16th November, 1847.

The President being absent, A. Clark, M. D., the 1st. Vice President, took the chair, Dr. VanBrunt was appointed Vice President, pro. tem., and Dr. D. G. Clark, Secretary pro tem.

The meeting being duly organized, the following gentlemen, on motion, were admitted members of the Society, to wit: Drs. Moore, Williams, Davis, Hooker, Clark, and Lane.

A paper was then read by Dr. S. G. Armor, on the Symptomatology of Disease, as furnishing indications of cure.

Many interesting cases were then reported, and much valuable information elicited upon subjects connected with the interests of the profession at the West.

Dr. I. C. Goodhue offered the following resolution which was unanimously adopted by the Society.

Resolved, That this Society will hereafter diligently inquire into, and vigorously enforce the Constitution and By-Laws, against any member or members who may countenance or consult with imposters in medicine or surgery.

Dr. L. Clark then offered the following resolution, which was unanimously adopted:

Resolved, That in the opinion of this Society, the reforms suggested by the American Medical Association as to the preliminary education of Students, their time of preparatory study, the branches taught in medical schools, length of sessions thereof, &c., are loudly demanded, and meet our entire approbation.

The following resolution was then offered by Dr, Ames, and unanimously adopted:

Resolved, That this Society do now elect the number of delegates to which it is entitled in the American Medical Association, which will meet at Baltimore, May, 1848.

Whereupon, Drs. I. C. Goodhue, S. G. Armor, A. E. Ames, J. B. Nash, and A. Clark, were appointed said delegates.

On motion, the Society adjourned to meet at the First Congregational Church, at six and a half o'clock, p. m., at which time the Society and a large number of citizens, who had assembled agreeably to invitation, listened to eloquent and appropriate addresses from Drs. Goodhue and Armor.

At the close of these exercises, the citizens retiring, a full and free discussion was entered into in relation to the character, type, symptoms, and pathology of Typhus, Typhoid, and Periodical Fevers.

On motion, Dr. L. Clark was appointed to read an essay at the next annual meeting at Dixon, and Dr. Ames to deliver a lecture at the same time and place.

The Society, after returning their thanks to Drs. Goodhue and Armor, for their able and interesting addresses, adjourned to meet at Dixon, Illinois, on the third Tuesday in May next.

D. G. CLARK, *Secretary pro. tem.*
Rock River Medical Society.

ARTICLE VII.

Surgery in the Hospitals after the battle of Buena Vista. By W. B. HERRICK, M. D., Professor of Anatomy in Rush Medical College, and late Surgeon to 1st Regiment Illinois Volunteers.

On the day of the battle, the wounded, after receiving such attention from the surgeons, as could, at the time and under the circumstances, be given to them, were removed from the field, some to Saltillo,* others to the Ranchea de Buena Vista.

When, on the evening of that day, we arrived at the last named place, we found those of the wounded still living, the dying and the dead, crowded together indiscriminately, and presenting a melancholy picture of suffering

* In the third line of our communication in the preceding number of this Journal, headed "Surgery at Buena Vista," for "Agua Nueva, ten miles from San Luis Potosi," read Agua Nueva, ten miles from Saltillo, on the road to San Luis Potosi.

and distress, not easily described, and never to be forgotten.

As soon as circumstances would permit, such as were still living, were selected from their less fortunate companions, placed in wagons in charge of the writer, and conveyed, late at night, to the large cathedral in town, which had already been converted into a temporary hospital.

The time, both day and night, for the forty-eight hours after, was spent by the surgeons in attending to such wounds as had been overlooked on the field, in renewing the dressings of those requiring attention, and in performing amputations and such other operations, as, upon a re-examination of the cases, seemed to be required.

During the third, and a part of the fourth days subsequent to the battle, the wounded were removed from the large but crowded church, to more convenient buildings, each capable of containing from fifty to one hundred patients.

In making this more permanent arrangement, those of the volunteers belonging to the same State, were, as far as was practicable, collected together in the same Hospital, and placed in charge of some one of their respective surgeons.

The wounded of the first and second Illinois regiments, consisting in all of nearly one hundred, in the proportion of about ten officers in their private quarters in different parts of the town, to eighty or ninety privates, collected together in one of the best and most commodious of the above named hospitals, came, in accordance with the plan adopted, naturally under our charge.

Myself, and so far as I know, all other surgeons in charge of hospitals, on making the proper requisitions, were provided with assistants, attendants, hospital stores, provisions, &c., promptly, and to an extent creditable both to the officers in charge, and to our country.

With regard to the subsequent termination and treatment of the cases under the charge of myself and others, it may be stated that most of the simple flesh wounds

healed rapidly and kindly under the use of dressings of lint, changed once in twenty-four or forty-eight hours, with an occasional aperient, and a diet adapted to the case. In some few instances the tendency to inflammatory action was so great as to require general antiphlogistic treatment, and the use of emolients, anodynes, and other soothing local applications

The presence of foreign substances in the simplest wounds, frequently caused protracted suppuration, and the formation of abscesses, and thus retarded their cure, in many instances, for a long time.

Stimulants and tonics, such as brandy, wine, iron, and acids, were used freely by myself and others, and with maked benefit in all cases of debility consequent upon profuse suppuration. (A friend who has observed the beneficial effects of such treatment in one or two cases of the kind, suggests the propriety of using astringents, in the form of lotions or injections, to moderate the profuse and debilitating discharge from extensive suppurating surfaces.)

The gun shot wounds, in which bones were injured, presented all the complications of compound comminuted fractures, and proved to be the most troublesome and difficult cases to treat, The practice usually adopted by us, was to search carefully for and extract all detached pieces of bone, cleanse the wounds, bandage the limb firmly to a point high above the injury, and then to apply splints to prevent motion, but so as, if possible, not to interfere with the renewal of dressings, of the exit of pus. Thick paste board splints, shaped properly, perforated opposite to the external wounds, moistened and adapted accurately to the limb thus injured, afforded, when dry, a most perfect and firm support, and were found, therefore, to answer better than any others, the indications in such cases.

Shortening was, in a few instances, the necessary consequence of loss of portions of bone, but these were exceptions to the general rule, for in most cases of fracture, union took place without loss of motion or deformity.

In our last communication we remarked, that in a ma-

jority of instances, primary amputations were followed by favorable, and secondary, by unfavorable results. The principal reasons why this was the case are obviously the following: The most of the amputations upon the field, the only ones truly primary, were performed upon individuals in good health, and under excitement, and, therefore, not in a condition to suffer from debility or nervous depression. The subjects of the subsequent operations, on the other hand, had become depressed both physically and mentally by profuse suppuration, pain, and want of rest, and were, therefore, cases in which unfavorable results are most generally expected.

Most of the amputations in the hospitals were performed after consultations, and were found to be indicated, in most cases, not by the severity of the injury, so far as could be determined by the first examinations, but by the appearance of general symptoms of an unfavorable character, in many instances, such as are consequent upon the absorption of pus.

It is a remarkable fact, that upon making examinations in the only two cases which proved fatal after the first week under my care, one after amputation, balls were found lodged in cavities filled with pus, one at the upper, and the other at the lower extremity of the tibia.

In our opinion, the fatal termination of these cases, as indicated both by the symptoms and the examinations, was in consequence of the absorption of pus, for it must be admitted that pus globules, whether too large or not to be absorbed by uninjured vessels, might readily pass into the large venus sinuses, such as are found every where in large bones, when broken into as in the cases above cited.

In conclusion, I will state that the enemy had proved themselves to be mere barbarians, by murdering all of our wounded they had met upon the field, thus leaving alive but a small number of those most severely injured, consequently, the proportion of deaths to the number treated was comparatively small, not averaging, as we believe, after the first day or two, more than five or ten in a hundred.

In the hospitals which had been provided for the wounded Mexicans, and placed in charge of their own surgeons, a proportion of the cases, amounting to at least one half of the whole number, terminated fatally. This mortality among their wounded, resulted partly, doubtless, from the nature of their wounds, many of which had been produced by the balls, grape shot and shells from our large guns, but principally, as the effects of comparatively slight wounds upon naturally bad constitutions, rendered still worse by a diet composed of saccharine, fatty, and other carbonaceous substances, and a life of idleness and dissipation, such as they had been living during the six months previous, at San Luis Potosi.

In proof of this, it may be stated, that with them nearly all the cases in which amputations were performed, whether early or late, terminated fatally, many after troublesome hemorrhage from numerous small vessels, both during and after operations, and the entire absence of a tendency to adhesion or healthy suppuration.

ARTICLE VIII.

On the use of astringent and stimulating injections in profuse suppuration. By DANIEL BRAINARD, M. D., Professor of Surgery in Rush Medical College.

Every practical surgeon must have met with cases of suppuration following upon erysipelatous or morbid inflammation, in which the tissues seem to melt away, or be dissolved in pus, and those who have the care of hospitals, or have practiced where the epidemic erysipelas was prevalent, can testify to the frequency with which this abundant suppuration carries off patients; those, especially, who have lost much blood from wounds or operations, or who are addicted to the use of alcoholic drinks, or debilitated from previous disease, when attacked with diffuse suppuration, are speedily exhausted by the discharge, if not poisoned by the absorption of pus into the system.

Under these circumstances, the ordinary means recommended are often, if not generally ineffectual; for wine, bark, brandy, acids, and nourishing soups, although they support the strength and prolong life, are, for the most part, but partial palliatives, for they can neither restore the waste of blood from copious suppuration, nor prevent purulent absorption or its effects, nor indeed be retained in considerable quantities in the stomach. Hence it becomes necessary to resort to other means, and that which we would recommend to the profession is the direct application of stimulant and astringent solutions to the purulent surface.

Pus is a fluid containing corpuscles analagous to those of the blood, rich in the nutritive portions of that fluid, and when lost in large quantities, is attended with the same results as hemorrhage or profuse serous diarrhœa. If the term serous hemorrhage be applicable to this latter disease, that of purulent hemorrhage is much more suitable for these cases which we are at present considering, and since, in an oozing of blood from a mucus or cut surface, or in a serous discharge, we resort at once and with promptness to local astringents, or the internal use of acetate of lead and opium, so in case of exhausting suppuration we should use powerfully astringent and stimulating applications directly to the pus forming surface—astringent for the purpose of checking its formation, and stimulant for the purpose of exciting adhesive inflammation, preventing the diffusion of pus among the tissues, and guarding against its resorption by the vessels. In this latter we have an important danger to guard against, which we do not fear either in cases of hemorrhage or effusions of serum.

After having, during several years, in which erysipelas and extensive suppuration were prevalent, seen patients sink more or less rapidly in spite of other means, we determined to put the above views into practice in a case of an extremely hopeless character which came under our care.

Oliver Benson, a healthy sailor, of 31 years of age, re-

ceived, on the 9th of Nov., 1847, a severe compound fracture of the right leg, three inches above the ankle, attended with much laceration of the skin, contusion of the muscles, comminution of the bones, and rupture of the anterior tibial artery and nerve. Amputation was judged necessary, and performed immediately, about four inches below the knee, in presence of the medical class; but before this was resorted to he was already greatly exhausted from loss of blood. During the following night he was restless, and moved the stump so violently as to cause some hemorrhage. For the two succeeding days he was restless, suffering pain in the stump and various parts of the body. Pulse quick; tongue coated. On the third day the stump seemed to be nearly healed by the first intention, and was not inflamed, but on the morning of the fourth an erysipelas was perceptible around the wound. A cathartic of calomel was administered, and evaporating lotions applied to the inflamed part. The disease, however, was not checked, but extended up, on the outside, above the knee, and on the third day from its commencement, fluctuation was perceived about three inches above the knee. The abscess having opened a copious discharge of pus took place. The next day, the abscess had spread upward above the middle and upon the under side of the thigh, and the suppuration was still more abundant. Two other openings were made, and compresses and a roller applied. This did not arrest it; the erysipelas extended to the hip and side of the body, and the suppuration to the pelvis, and sloughs were drawn out from the openings. While the disease was making this progress, the symptoms became aggravated, with prostration, diarrhœa, and occasional vomiting, for which, opium, and acetate of lead, wine, capsicum, and animal broths were given to the extent of tolerance, but without effect.

At this period we made a saturated solution of alum in water, to which was added four grains of sul. copper to the ounce, and after evacuating the pus by free orifices, the whole cavity of the absess was filled with this solution, and the orifices being closed, it was retained until the smart-

ing and pain were severe, and then allowed to escape, and pure water injected to wash it out. The roller and compresses were then applied. The immediate result was the reduction of the discharge from twenty ounces, to three or four, in twenty-four hours, and this was of healthy consistence.

The suppuration extended no further, and the progress of the disease was arrested. The injections were repeated daily for a week. The stump which had commenced to slough, assumed a healthy appearance, and the patient became speedily convalescent.

The principle upon which the practice is based, is the same as that upon which blisters are used in similar cases, viz: exciting a healthy inflammation; but the injections have the additional advantage of arresting the discharge, and producing in the walls of the abscess an adhesive process, by which its progress is arrested.

The efficacy of such injections into purulent cavities connected with scrofulous joints, has long been familiar to us, and some illustrations of its effects in such cases, were given in a former number of this journal, under the head of amputation in such cases. Our further reflections and experience have led us to recommend its use in all those cases in which the system is exhausted by purulent formations from the blood, beyond the power of the nutritive process to supply. There are great numbers of these cases in which death is not caused by disease of vital organs, but by the drain upon the system. Such are the diffuse suppurations from erysipelas, from abscesses near carious joints, from disease of the spine, as in lumbar and psoas abscesses, and in extensive deposits from purulent absorptions.

These being all either very dangerous, or entirely hopeless cases, under the best treatment hitherto pursued, the discovery of additional means of resisting them is greatly to be desired, and it is with the hope that the practice here recommended may be of this kind, that these observations are submitted to the profession.

PART II.—BIBLIOGRAPHICAL NOTICES.

ARTICLE IX.

The Dental Register of the West. Published quarterly, by order of the Mississippi Valley Association of Dental Surgeons. Edited by James Taylor, M. D., D. D. S., of Cincinnati, O., and B. B. Brown, M. D., of St. Louis, Mo. (In exchange.)

The first number of this publication is on our table; it shows a commendable degree of interest for improvement among the Dentists of the West. Its contents appear to be well made up, and mostly of original matter, on subjects directly pertaining to the theory and practice of Dental Surgery. We are gratified to see the zeal with which our friends of the dental profession are taking hold of the subject of reform, with a view of improving the practice and elevating the standard of professional acquirements. We observe that they are disposed to discountenance quackery by disclaiming fellowship with those who are guilty of it. As they have now two colleges for educating dentists, one in the east at Baltimore, and one in the west at Cincinnati, which confer the degree of Doctor of Dental Surgery upon those who comply with the requirements, and come up to the standard, may we not hope soon to see the possession of this degree a passport to public confidence? E.

ARTICLE X.

The American Medical Almanac for 1848. Containing statistics of the various Medical Colleges, Hospitals, Dispensaries, etc., of the United States, together with other information of value to the physician and student. Philadelphia: Lindsay & Blakiston. pp. 224, 18mo. (From the Publishers.)

This is a neat and convenient little volume, that furnishes an almanac convenient for office use, and at the same time furnishes an amount of statistical information in reference to medical institutions, that must be interesting to the physician, not to be found collated elsewhere. We hope the enterprising publishers may meet with sufficient encouragement to induce them to continue its publication annually hereafter. E.

ARTICLE XI.

North-Western Educator. A monthly periodical devoted to Education, Literature, and News.

We have received the first and second numbers of this periodical, the publication of which has been recently commenced in Chicago, under the editorial charge of Mr. J. L. Enos.

It is to appear monthly, containing thirty-two pages in each number, at a subscription price of one dollar per annum.

The work makes a good appearance, and its contents are, we should infer from glancing over the table, well made up.

We understand that it is the intention of the editor to devote a portion of its pages to popular physiology. By the way an excellent idea, as it is high time that this branch of science, with comparative and descriptive anatomy, should form a branch of popular education. There is no subject that could be more interesting or instructive than these, to the student of nature, for they bring him at once to the contemplation of her noblest and most perfect work.

E.

ARTICLE XII.

Tracts on Generation. Number 1. Proofs that the periodic maturation and discharge of ova, are in the mammalia

and human female, independent of coition as a first condition of their propagation. By T. L. G. Bischoff, M. D., Professor of Physiology, &c., Giessen. Translated from the German by C. R. Gilman, M. D., Professor of Obstetrics, &c., College of Physicians and Surgeons, N. Y., and Theodore Tellkampf, M. D., Gebhard professor, Columbia College. pp. 65. S. S. & W. Wood, New York. (From the Publishers.)

This is an exceedingly interesting tract upon a subject that has, for the last few years, attracted a considerable amount of attention from physiologists.

A synopsis of the observations of the author was given in Vol. 2, first series, of this Journal, but as this is fuller and more in detail than the review from which it was taken, we shall extend the notice of its contents

Amongst the most important points that appear to be established by these researches, are, 1st. The actual contact of the semen masculinum with the ovum. 2d. That an ovum is discharged from the ovary, and transmitted through the fallopean tubes at each menstrual period, or the period of heat in the inferior animals.

In reference to the first of these propositions, it is sufficiently manifest from the microscopic observations of the author and others, that the spermatozoæ do reach the fallopean tubes, as they have been repeatedly found in that situation.

The following experiment and observations illustrate this point, as also the maturation of ova independent of coitus, in the interest of which will be found a sufficient reason for laying the facts a second time before our readers.

"With the intention of ascertaining to what point the male semen penetrates in bitches at the time of coition, I had kept a strong, healthy young bitch, which had never been covered. Since all depended upon my knowing, with absolute certainty, the time of the first coition, I kept her in my own house and watched her carefully. In the beginning of June, 1843, I observed that she was near the time of heat, the dogs began to follow her eagerly, and blood was discharged from the vagina; on Friday, June

9th, she did not allow herself to be covered. I then chained her up and isolated her strictly till the 11th, at three-quarters past one, when I put a dog to her, and she was covered for the first time. That this was a first coition was evident by her resistance and cries. As soon as coition was over, I extirpated the left uterus, ovary, and tube, and closed the wound by suture. I first examined the uterus, and found it quite full of spermatozoa in active motion. I intended next to examine the tube to find whether the semen had penetrated into it, but while preparing it, on laying bare the ovaries, I saw to my astonishment, that the ova which I had certainly expected to find in the Graafian Vesicle, had been already discharged from the ovary, for there were five small openings on the ovary, from one of which a little mass projected; five Graafian Vesicles had, therefore, already burst. The formation of the corpora lutea had even made some progress, commencing at the base and on the walls of the follicles; they even presented a considerable cavity filled with limpid serum, in which, however, no ovum was contained. It was now apparent to me how such a state of things had possibly led former observers, who were ignorant of the ovule, to the belief that the follicles were not yet opened. I gained at once the full conviction that they had opened, by finding the five ova near each other in the tube, about two inches from the fimbriæ. Nothing new resulted from their investigation; they had, in every respect, the characteristics which I had already seen in ova at this period of their development, and were entirely identical with the perfectly mature ovarian ovule. I looked in vain throughout the whole tube up to its uterine orifice, for spermatozoa; nowhere was a single one to be seen, and I spent so much time and care in this search, that I venture to assert most positively that the semen had not yet entered the tube. Next morning, at 10 o'clock, twenty hours later (within which time I had, in my former observations, usually found that the semen reached the ovary): I ordered this bitch to be killed. The right ovary showed five small openings, and five corpora lutea further developed, and in addition quite a large Graafian Vesicle, not yet ruptured; the tube contained five ova, which had progressed beyond its middle, and were several lines apart. Three of them were quite normal in their condition, and similar to those of yesterday, but two were plainly abnormal and abortive, the zona indistinct, the discus proligerus incompletely developed, the vitellus a small irregular mass of yolk granules. I now found spermatozoa in the tube, partly in motion,

partly not; they had, however, penetrated not more than three lines beyond the uterine orifice. The whole remaining portion of the tube contained none, nor was there any vestige of them upon or around the ova; *the ova had evidently not been fecundated.*

"I believe that this observation incontestibly proves that the ova, when matured, leave the ovary and penetrate the tube, without any influence of the coitus. That it had not taken place before the time when I observed it, may be considered as certain, in view of the great care that had been taken; that the ova had been discharged by any influence of the coitus cannot for a moment be admitted, because,

"1st. It is certain that coition does not always produce this effect, as I myself have found that after coition had been frequently repeated, the Graafian Vesicles were still closed, and,

"2d. As it cannot be imagined that the ova had, in the short space of a quarter of an hour, passed over two inches of the narrow Fallopian tube, since it requires, as we know, eight days to pass the other two or three inches. If, therefore, quite independently of coition, the ova actually leave the ovary, and pass, unfecundated, into the tube, and may remain unfecundated after a period of twenty hours—we are first to inquire how this agrees with my former observations, in which I found in bitches, six, eighteen, or twenty hours after the first coition, the Graafian Vesicles still closed, and the semen then penetrated through the whole extent of the tube, and even upon the ovary? The answer of these inquiries evidently is, that when the ova are mature, fecundation is possible within certain limits of time and space. It depends, as it appears, on the peculiarities of the animal, and on the occurrence of opportunity, whether coition is consummated while the ova are still in the ovary or not till they are already detached and have entered the tube. Were animals placed in perfectly natural circumstances, and opportunity offered for coition, it appears probable that the sexual instinct would exhibit itself before the ova were discharged. If coition be at that time consummated, the semen may penetrate through the tubes to the ovary, and this, as my observations have shown, may take place in twenty hours. Other bitches admit the dog later, or, perhaps, opportunity is wanting, the animal being, as in the case above detailed, locked up,—then the ova are none the less detached, and may even after that, if coition take place, be fecundated; how long

this is possible, I cannot say with certainty; but as bitches generally admit the male for the space of eight days, and as the first manifestations of development in the ovum, the division of the yolk, begins in the lower portion of the tube, where they are met with about the seventh or eighth day, it appears that this is the limit within which fecundation of the ovum is possible in the bitch."

The author makes numerous experiments upon rabbits, dogs, rats, &c., with a view of illustrating the formation of the corpora lutea, and the development of ova prior to the influence of fecundation upon them.

Several of these observations lead to the conclusion that fecundation generally takes place in the fallopian tubes, as the ova seem to go on in their development regularly until passed into them, and there perish unless met by the vivifying power of the semen masculinum. And, notwithstanding the spermatozoa are sometimes transmitted the whole length of the tubes, it does not necessarily follow that the fecundating influence is exerted prior to the discharge of the ovum from the Graafian Vesicle.

On this subject the author says:—

"After I had gained an insight into these phenomena, many of the results of my former experiments, which I had then considered as futile, or had differently interpreted, again engaged my attention. I had been, as I have mentioned, under the erroneous impression that coition was the cause of the discharge of the ovum from the ovary. I therefore counted always, as all my predecessors had done from the first coition; it accidently so happened that most of the bitches which were used for these observations were probably covered before the ova were discharged. Still, I find among my previous observations, several in which I had at the time noted that though the ova were found in the upper third of the tube, I saw spermatozoa only in its lower portion. As I, however, then knew that they did penetrate through the whole length of the tube, I supposed that I had overlooked them in the upper portions, perhaps because their number had been small, or that I had not been sufficiently careful in my experiments. I am now convinced that these were cases in which the ova had been discharged before coition had taken place, and the semen had time to penetrate further in the tubes. In bitches I had only seen

spermatozoa *uniformly on the ova* in the lower third of the tube, rarely in the upper portions.

"In rabbits, where the period of heat cannot be as accurately ascertained as in bitches, and where the male generaliy improves the first opportunity for coition which the female will afford, it appears that the ova are not usually discharged till the semen has time to reach the ovary, this requiring, according to the observations of Barry and myself, nine or ten hours. In rabbits I have always found spermatozoa on the ova in the upper third of the tube; and with them the division of the yolk begins higher up in the tube, and the limits within which fecundation is possible are probably much shorter than in the bitch."

E.

ARTICLE XIII.

A System of Surgery. By J. M. Chelius, Doctor in Medicine and Surgery, Public Professor of General and Opthalmic Surgery, etc., etc. Translated from the German, and accompanied with additional notes and observations, by John F. South, late Professor of Surgery to the Royal College of Surgeons, and one of the Surgeons of St. Thomas' Hospital. In three volumes, pp. 942, 640, 586. Philadelphia: Lea & Blanchard. 1847. (From the Publishers.)

The appearance of an elaborate treatise on Surgery, translated from the German, is an event of rare occurrence in medical literature, and deserves to be hailed with welcome by the profession. Even if the merits of the work was less than those of "Chelius' System," it would be a valuable addition to our libraries by making us acquainted with the principles and practice of a country where surgery has lately been cultivated with great success, and of which we hear directly so little. But this work, from the limited examination we have been able to give it, seems to be the most extensive and complete system of surgical practice in the English language, unless Cooper's Surgical Dictionary may be considered an exception, and in many respects,

particularly in regard to recent improvements, this is less complete than that before us. The notes constitute indeed a large part of the work, and taken as a whole, it might be said to be almost as much English as German, and although they are in general judicious, they are not unfrequently in conflict with the text, a circumstance which, while it might be no disadvantage to the experienced surgeon, would be embarrassing to the younger student.

Truth to say, the plan so much adopted of late of adding notes to medical books, equal in volume to the original work, is liable to serious objections. It has doubtless arisen from the difficulty of embracing more than a very imperfect account of a subject within the limits proposed, and from a desire on the part of those acting as editors to supply these inevitable deficiences, and is to this extent, commendable. But when we see three corpulent tomes of 1000 pages each, and an atlas upon operations alone, and each succeeding treatise more voluminous than the preceding, we are driven to the conclusion that surgical science has become too extensive for text books, and can only be properly treated in a series of monographs,on each individual division of the subject. Inflammations, dislocations, fractures, &c., are subjects which might profitably occupy the attention of any individual member of the profession, and a treatise on which would be abundantly large for the student. While then, we look upon the publication of such works as the present as a great improvement on those mostly in use but a few years since, it appears that a still further advance is required in a separation of the different branches of the subject, and a consequent division of the labor.

It is but justice to say that occasions for animadversion on the practice of overloading books with notes more appropriate than the present, have often presented themselves, but the precise cause of the difficulty, and the remedy, were not then so obvious to our vision as at present, for as we have already stated, these volumes form perhaps the most complete system we possess, enriched with a copious

bibliography and references to the authorities in all cases—these references when deficient in regard to American works, being completed by Dr. Norris. D. B.

ARTICLE XIV.

Illustrations of Medical Botany; consisting of colored figures of the plants affording the most important articles of the Materia Medica, and descriptive letter-press. By Joseph Carson, M. D., professor of Materia Medica in the Philadelphia College of Pharmacy, Member of the American Philosophical Society, of the Academy of Natural Sciences of Philadelphia, Fellow of the College of Physicians, etc. The drawings on stone by J. H. Colen. Volume 1. Philadelphia: Robert P. Smith, 144, Chesnut Street. 1846.

We have received from the publisher a specimen number of the above work, which is now in course of publication. It is to consist of five numbers, large quarto, three of which are now published, and numbers four and five will be shortly. The colored plates are executed with great accuracy, and represent the general appearance with such a degree of correctness, that all acquainted with the plants, would, at first sight, recognize them in the representation. A work of this kind was much needed at the present time, as there is no other of the kind now in print in the United States.

This excellent work not only includes the important medical plants of our own country, but the principal ones of every climate. Each of the plates is accompanied with a botanical history of the plant, and a succinct account of its medicinal properties.

The author, who is well known to the medical profession, is every way qualified to do justice to such an undertaking. It could not have fallen into better hands.

The figures, with the accompanying text, render it most valuable for physicians, and particularly for those whose

business it is to teach this branch of medicine. The plates are of such a size, that they can be exhibited to large classes. All who are desirous of being familiar with this department of medicine, would do well to procure the work.

J. McL.

ARTICLE XV.

Report of the Trustees and Principal of the Indiana Asylum for the Deaf and Dumb; with an exhibit of expenditure. Presented to the General Assembly, Dec. 6th, 1847. (From Mr. Brown, Principal.)

To our profession, which ranks second to no other class or body of men in the *performance* of works of benevolence, a document like this must possess peculiar interest, as it shows unexampled prosperity in an institution eminently benevolent in its character.

The number of pupils under instruction in this Institution, which is in Indianapolis, at the date of the report, as appears from a catalogue appended, was eighty.

The following extracts from the full and satisfactory report of Mr. Brown, the intelligent and devoted principal of the Institution, will, we are confident, prove highly interesting to our readers, in a psycological point of view, as pourtraying the unfortunate condition of the deaf mute, and thus showing the great achievment in the process by which the barriers that lock up his mind from a knowledge of the world are overcome, and the interrupted channels of communication provided with a substitute.

"Of the senses possessed by mutes, that of sight is, of course, the most important. Through it they gain a superficial knowledge, at least, of surrounding objects. Shut out, as they are, from intercourse with others, this knowledge comes to them in all its primitive simplicity. The more common operations of nature are observed, without inquiry as to a cause; or if the query is suggested, it is easily satisfied with the apparent or secondary. That the trees should grow, the fields be clothed in verdure, streams run on in their courses, men and animals live and move, all

seems too natural to excite a thought as to causation. That this state of things did not always exist, or that it requires an author, never enters their minds. The course of the sun, however, not unfrequently attracts their attention. Sometimes they suppose him endowed with life and motion, by the rays sent from his burning face, warming, and again scorching the earth, with the men and animals on its surface. Some think it an immense ball of fire, which a kind being above the blue vault draws up to the zenith in the morning, lets down to the west in the evening, and then at night, when men sleep, rolls round beneath the horizon to the east, ready for another day's journey through the sky. The stars seem tapers set in the arch of night, or small openings through which the glorious light beyond darts down upon us; and, strange to tell, they sometimes regard them as the bright eyes of beautiful beings of the upper sphere. The rain appears to some caused by a strong man, who dips up the waters of distant rivers, and then allows them to descend upon us. The jar of the thunder, for they are of course insensible to its sound, seems perhaps occasioned by heavy carriages, rolling rapidly over the welkin; while the lightnings are sparks and streams of fire from the forge of some huge Vulcan above. The winds they sometimes think occasioned by the united breath of a vast multitude of men, assembled in some remote place.

"Should theologians seek, in the above incoherences, the idea of a God, they will be forced to the conclusion, that mutes are naturally polytheists.

"The rights of religion are to them incomprehensible. They, perhaps, see their parents, morning and evening, bow around the family altar; they imitate the example, but kneel before an unknown God. People assemble on the Sabbath, and go through certain ceremonies; the mute knows not why, unless it be to propitiate some great being above to protect them from wild beasts, or other dangers. They see the dead followed to the tomb by weeping relatives, and a numerous throng of friends. The tears, the saddened looks, the solemn prayers, impress them with a dread of death which shrouds the grave in the most fearful terrors. That the dead ever rise to a fairer world, enters not their beclouded minds. As death seems the end of being, the soul's immortality is utterly unimagined.

"Of right and wrong, they seem to have little or no idea, previous to all education; though education, in this particular, is often commenced with some success at home. Even the right of property is not understood by many, and

I have been assured by those whose veracity could not be doubted, that they have repeatedly, before instruction, taken that which did not belong to them, without the slightest compunction of conscience. They are often found ignorant of the duty of respecting parental authority, and are surprised when they are punished for a violation. The approbation or displeasure of others, seems in many instances to be the sole rule by which they regulate their acts, without any reference to a higher principle or power. It should, however, be stated, to the credit of the parents and friends of the deaf and dumb, that they generally so far succeed in teaching the elementary principles of morals, that they come to institutions impressed with a high regard for truth and for the rights of property. It may be readily inferred from these facts, that they have not the higher idea of God as the ultimate judge of right and wrong.

"Of written law, human or divine, they are of course totally ignorant. An uneducated mute is sometimes present when a court is assembled to try a criminal. He sees the grave men busily engaged at, he knows not what. He sees the criminal confined in prison, and is utterly unable to divine the reason; or, he supposes the prisoner has incurred the hatred of the grave men, and that they take this way to manifest their anger. That this is the administration of justice, equal, even-handed right, enters not his imagination.

"Of language, in our understanding of the term, they have no idea. Signs, they have, which, in their uncouth state may convey a few plain thoughts; but to them, letters, words, and books mean nothing. Their own names are as great mysteries as Chinese characters are to us. Even the fact that they or others have names is unknown. And, so dissimilar is the order of ideas in their imperfect gesture language from any language spoken or written, that were the words in sentences, rendered successively into signs, they would know little of the general meaning. The arrangement is just as unnatural to them, as the words in the columns of a spelling-book are to children capable of speech."

The report proceeds to give a history of this kind of education—an account of the steps taken in teaching, which is clear and concise—a synopsis of that which is wanted to make the Institution what it should be, (and we are glad to see that he advocates its being made a free school,) and after

an account of the origin of the Institution, closes as follows:

"At the darkest hour of her trial, her finances in almost hopeless depression, while the cold, unpitying finger of scorn was beginning to point at her hitherto fair escutcheon, and the startling, though scarce-breathed whisper was heard, "Indiana will repudiate!" it was at this time our noble State remembered her unfortunate children, the Deaf and Dumb, the Lunatic, and the Blind. She took them by the hand, and scorning to take the funds which others might claim, though locked in her own treasury, she taxed her citizens to raise a special, a sacred revenue for their benefit.

"How stands the case now? Her credit is redeemed. A building, even now erected, tells how she will house and care for the poor Lunatic; already has she gathered her Blind from all quarters of her extensive domain, and presents, only four years after its organization, an Institution actually educating a greater number of Mutes, in proportion to her population, than any other State in the Union."

E.

ARTICLE XVI.

Wood's Quarterly Retrospect of American and Foreign Practical Medicine and Surgery. p. 64. 8vo. New York. Richard & Geo. S. Wood. (In exchange.)

The first number of this work was received prior to the publication of our last number, but too late to receive a notice in its proper place.

It is on the plan of Braithwait's and Ranking's works, which we have already favorably noticed, but is to be fuller in reference to what appears each quarter in American medical literature.

It is a work which, from its character, being a synopsis of all that transpires in the way of improvements and discoveries in the profession generally, must be highly interesting, and as it is afforded at the low price of one dollar per annum, will probably have, as it should, a very extensive circulation.

E.

ARTICLE XVII.

Principles of Human Physiology, with their chief applications to Pathology, Hygiene, and Forensic Medicine. By Wm. B. Carpenter, M. D., F. R. S., Fullerian Professor of Physiology in the Royal Institution of Great Britain, Corresponding Member of the American Philosophical Society, and of the National Institution of the United States, Lecturer on Physiology at the London Hospital, Medical School, etc. etc. Third American, from the last London Edition, with notes and additions by Meredith Clymer, M. D., Consulting Physician to the Philadelphia Hospital, late Professor of the Principles and Practice of Medicine and Clinical Medicine in the Franklin Medical College, Philadelphia, Fellow of the College of Physicians, etc. etc. etc., with three hundred and seventeen wood cuts and other illustrations. Philadelphia: Lea & Blanchard. 1847. (From the Publishers.)

Carpenter's Physiology is so well known through the medium of previous editions, that nothing need be said of the text. The additions by the editor, Dr. Clymer, naturally enhance the value of this edition, making it second to no work extant upon the subject of which it treats.

G. N. F.

ARTICLE XVIII.

Lectures on the Principles and Practice of Physic. Delivered at King's College, London, by Thomas Watson, M. D., Fellow of the Royal College of Physicians, late Physician to the Middlesex Hospital, and formerly Fellow of St. John's College, Cambridge. Third American from the last London edition. Revised with additions by Francis Condie, M. D., Secretary of the College of Physicians, author of a Treatise on Diseases of Children, etc. etc. Philadelphia: Lea & Blanchard. 1847. (From the Publishers.)

Commendation of these lectures would be only reiterating the often recorded opinion of the Profession. By universal consent the work ranks among the *very best* text books in our language. The author has no theories to defend, and indulges in few speculations; his work is therefore of the kind most needed, a *practical* one. The *style* is an additional recommendation, being easy and familiar, free from pedantic efforts to "show off" by the use of high sounding words, and far-fetched terms, which but confuse the student, and excite the risibles of the sensible practitioner. Doctor Watson is a perfect hater of technicals. His object is to impart a knowledge of disease and its cure, not of the best manner of so compounding words as to make them the most difficult of pronunciation, even though at the risk of an obscurity of meaning. He would make of his hearers and readers, physicians, not pedants. We commend his example to certain writers and lecturers we wot of this side the Atlantic. Dr. Condie has, in this edition, supplied some omissions which were very important, particularly to western practitioners and students. G. N. F.

ARTICLE XIX.

A New Medical Dictionary; containing an explanation of the terms in Anatomy Human and Comparative, Physiology, Practice of Medicine, Obstetrics, Surgery, Therapeutics, Materia Medica, Pharmacy, Chemistry, Botany, and Natural Philosophy, with the formulas of the principal pharmocopœias, and valuable practical articles on the treatment of disease. On the basis of Hooper and Grant. Adapted to the present state of Science, and for the use of Medical Students and the Profession. By D Pereira Gardner, M.D., Professor of Chemistry and Medical Jurisprudence in Philadelphia College of Medicine, etc. etc. 1 vol. 8vo. New York: Harper & Brothers. 1847. (From A, H. & C. Burley.)

This is a handsome volume about the size of Hooper's, got up in excellent style.

That our readers may understand the object of the publication, and the advantages it possesses over most works of its class, we allow the Editor to speak for himself, by quoting his preface entire.

"Dr. Hooper's Medical Dictionary has been, since its first appearance in London, a standard in the Profession. It has almost completely superseded the books of this class which were in circulation antecedently, and retains its original and imposing position. The publishers have not, however, overlooked the necessity of frequent emendations to keep pace with the rapid advancement of the medical sciences. The present seventh London edition has been completely revised and considerably improved by Professor Klein Grant, a gentleman of distinguished medical celebrity.

"Actuated by the same liberal motives, the American publishers have determined to keep pace with the improvements in the medical profession, and hence the republication of this work in a new and more compendious form. Adopting the last edition of the English work as a basis, the editor has bent his exertions, in this revision, to the production of a dictionary entirely adapted to the use of medical students, while he has endeavored to retain all the practical matter of the previous writers, so as to make it equally invaluable to the general practitioner. He has made an addition of many thousand articles, and more especially in the departments of chemistry, physiology, surgery, and the practice of medicine; nor has he lost any opportunity of giving notoriety to numerous American improvements, wherever the limits of the article have permitted."

ARTICLE XX.

A Treatise on the Diseases of the Air Passages; comprising an inquiry into the history, pathology, causes and treatment of those affections of the throat, called bronchitis, chronic laryngitis, clergyman's sore throat, etc. etc. By Horace Green, M. D., formerly president and professor

of the theory and practice of medicine in the Castleton Medical College, &c. &c. New York and London. 1846. pp. 272. 8vo.

We have omitted to notice this work which has been for more than a year before the public, until the present time, being, in a great measure, influenced by the notices of the medical press, which not being, in several instances, favorable, prevented us from giving it an examination. But having recently perused it, we were favorably disappointed in regard to its merits, and think it deserving of the careful attention of practical physicians.

It is, so to speak, a book of one idea; the affections enumerated in the title page. being treated with cauterization of the orifice and internal surface of the larynx with nit. arg., in dose of about forty grains of the pure crystals to the ounce of water. The simple mention of such an operation is sufficient to excite the surprise of those accustomed to think that the slightest contact of water even, will excite violent spasm and closure of the glottis, and it requires some reflection to induce us to try it, and actual experience to convince us that the application of the above named solution is attended with and followed by less irritation than is the result of the contact of the simplest fluid. Such, however, seems to be the fact, and having used a solution of half the above named strength to the orifice or internal surface of the larynx, in three instances, we can testify that it was followed by no considerable irritation.

But if safe, is it useful? In answer to this question, Dr. Green gives the reports of a large number of cases treated in this way, which go far to establish the affirmative of the question, without, however, specifying the circumstances in which it is likely to be useful, or indicating any circumstances in which its use might be followed by inconvenient effects.

The following extract will show the manner in which the application is to be made.

"*Method of applying the solution.*—In the treatment of laryngeal disease, by the direct application of the nitrate of

silver, to the diseased surface, I have employed, ordinarily, a solution of this substance, of the strength of from two to four scruples of the nitrate, to an ounce of distilled water. When, however, there are found extensive ulcerations of the epiglottis, or, about the opening of the larynx—ulcerations which it is desirable to arrest at once, I have not hesitated to apply directly, to the diseased parts, a solution of double the strength of the last named. But one or two applications only, of a medicine of this power should be made, at one time; ordinarily, however extensive the lesions may be, it will not be necessary to employ a solution of greater strength than one composed of four scruples of the salt, to an ounce of water. On the other hand, it has been found, that one of less strength than of from forty to fifty grains of the nitrate to the ounce of fluid, will have but little effect upon a diseased mucous surface, where ulcerations exist.

"In cases in which it becomes necessary to cauterize the interior of the laryngeal cavity, the aperture of the glottis should not be passed at once; the part should be *educated*, by applying the solution daily, for several days, to the faucial and pharyngeal region; to the epiglottis, and about the opening of the glottis.

"Proceeding in this manner, that exquisite sensibility which belongs to the lips of the glottis, is, in a good degree, overcome, and the instrument may then be passed into the larynx, without producing half the amount of that irritation, which its introduction below the epiglottis would have awakened at first.

"The instrument which I have always employed for making direct medicinal applications into the cavity of the larynx, is one composed of whalebone about ten inches in length, (with or without the handle as represented in the plate) curved at one end, to which is securely attached a small, round piece of fine sponge.

"The extent to which the rod is bent, must be varied according to circumstances, for the opening of the glottis is situated much deeper in some throats, than in others; but the curve which I have found suited to the greatest number of cases, is one which will form the arc of one quarter of a circle, whose diameter is four inches. (See Plate VII. Fig. I.)

"The instrument being prepared, and the patient's mouth opened wide, and the tongue depressed, the sponge is dipped into the solution to be applied, and being carried over the top of the epiglottis, and on the laryngeal face of

this cartilage, is suddenly pressed downwards and forwards, through the aperture of the glottis into the laryngeal cavity.

"This operation is followed by a momentary spasm of the glottis, by which the fluid is discharged from the sponge, and is brought into immediate contact with the diseased surface.

"Every physician who has been present when the operation has been performed, (and a large number have witnessed it from time to time,) has manifested much suprise on observing how little irritation has been produced by the introduction of the sponge."

Time and experience will be required to determine the value of the treatment, for if it has been proposed and used by Trousseau and Belloc, it has not been so generally applied as to have its value properly tested. In the mean time, it seems to us highly probable that its use in many cases of chronic inflammation of the throat, is worthy of a careful trial. D. B.

PART III.—SELECTIONS.

1. *On the effects of Bloodletting on the Young Subject.* By John B. Beck, M. D., Professor of Materia Medica and Medical Jurisprudence, in the College of Physicians and Surgeons of New York.

There is no subject, perhaps, so deeply interesting to the practical physician, as the effects of bloodletting on the human system, and the various uses to which it may be applied in the management of disease. In promptness and power, it exceeds all other agents, and its capacity for doing good or harm is proportionally great. It is resorted to, also, at every period of life, and by some it is even prescribed with equal, if not more freedom in children than in adults. It becomes, then, a question of the greatest moment to determine, if possible, whether the age of the patient has any influence in modifying its effects. And this is the subject upon which I propose to make a few remarks.

That the youngest child can sustain the loss of blood within certain limits, as well as the adult, is manifest from a variety of facts. Thus children are sometimes born in a state of asphyxia from apoplexy. On dividing the cord and letting a moderate quantity of blood flow, respiration is established, and every thing does well. Again, not unfrequently from not applying the ligature sufficiently tight around the cord, or from the cord contracting and thus loosening the ligature, hemorrhage takes place, and yet no injurious consequences result. Besides this, we know that in cases of disease, the youngest children may be bled, not merely without injury, but with advantage. When, however, the loss of blood is carried beyond these limits, important peculiarities are observed, showing a difference in the effects produced in the young subject, from those in the adult.

The first peculiarity is, that the young subject does not bear the loss of considerable quantities of blood, so well as the adult. I am not aware that children fall into a state of syncope from the loss of blood more readily than adults; but when syncope does come on, it is very certain that they do not recover from it so readily, and they are always in more or less danger. In the adult, syncope from the loss of blood, unless the quantity be very large, is a state which, as a general rule, is attended with little or no danger, and from

which the patient speedily recovers. Hence it is that physicians are continually in the habit of inducing it in the management of certain forms of disease, and not merely with impunity, but evident advantage. In the young subject it is not so, and it is a state always attended with hazard. If the child recover from it, it does so very slowly, and every now and then it sinks irretrievably under its influence. That this is a fact, is confirmed by abundant testimony, on the part of those who have taken the trouble to make the necessary observations. Dr. Marshall Hall, in speaking on this subject, says, "In infancy, the state of syncope (from the loss of blood) is a state of danger."* Evanson and Maunsell remark, "As a general rule, it is well to stop the flow of blood when decided pallor takes place, without waiting for actual fainting, from which children do not quickly recover."† Armstrong says, "Do not bleed to actual syncope in children, as they are apt to fall into convulsions, of which they may die. Children do not recruit from very large bleedings like adults."‡ Dr. Ryan observes, "The abstraction of blood in cases of infants and children until fainting occurs, is the worst practice that can be imagined, as convulsions or death may be produced."§ Indeed, the general fact admits of no question; and the reason is obvious enough, if we reflect for a moment upon the nature of the agent, and at the same time compare it with the susceptibility of the subject. Carried to the point of syncope, bloodletting is one of the most direct, speedy, and profound sedatives that we have in our possession. In a few moments, it reduces the subject from a state of perfect health or the high excitement of disease, to a state of temporary death. Now it is very evident that the capability of recovering from such a state, must be just in proportion to the powers of the constitution. From the very nature of its organization, therefore, it is obvious that the system of the child cannot sustain so well as the adult a shock so sudden and powerful as this.

The second peculiarity attending the loss of blood in the young subject, is, that the nervous system is more powerfully affected than in the adult. The evidence of this is, that convulsions and coma more frequently occur after the loss of blood in children, than in adults. In the adult, both these

* Researches on the Morbid and Curative Effects of the Loss of Blood, by M. Hall, M. D., p. 87.

† On the Management of Diseases of Children, p. 107.

‡ Lectures, &c., by John Armstrong, M. D., p. 387.

§ Manual of Midwifery, by M. Ryan, M. D., p. 475.

occurrences sometimes take place, more especially convulsions. Thus, for example, puerperal hemorrharge is not unfrequently followed by them. I have witnessed the same thing in a gentleman of irritable habits, who had bled too largely from the arm. He had lost about a quart of blood, when incipient syncope came on, followed immediately by a violent convulsion. In children, however, these occurrences are much more common; and the reason, no doubt, is the greater predominance, as well as the impressibility of the nervous system. A great variety of causes, we know, will induce convulsions in a child, and among these exhaustion is a very common one. With regard to coma, too, this may be brought on in children by any debilitating cause. A striking illustration of this we see now and then in diarrhœa, which has been continued too long. In these cases, the brain becomes suddenly affected, and a state of stupor or coma is induced, which not unfrequently is mistaken for Hydrocephalus. The same thing occurs from the loss of too much blood.

The third peculiarity is, that the repetition of bloodletting is not so well borne by the child as the adult. A child of good constitution and ordinary strength, may bear a first bleeding, perhaps quite as well as an adult. Under particular circumstances, too, of disease, a second may be borne very well. Beyond this, as a general rule, it will be found, I think, that the child cannot well sustain the loss of blood. On this point, I believe, there is little or no difference of opinion among men of judgment and observation. Dr. John Clarke says, "Very young children bear very well the loss of blood even to fainting, once or twice, but they ill bear a more frequent repetition of bleeding. Their powers sink under it, and by no art can it be replaced."* Marshall Hall says, "In infancy, a second or third bloodletting is borne with difficulty."† Evanson and Maunsell say, "Repetitions of bloodletting are not well borne by the child."‡

The fourth peculiarity is, that the effects of local bloodletting, especially leeching, are different upon the child, from what they are upon the adult. In the adult, the effect of leeching is in a great measure local, and it is not usually resorted to until after general bloodletting is considered inadmissable. In a child, on the contrary, it produces very much the same effect as a general bleeding. From the

* Commentaries on the Diseases of Children, p. 103.
† Researches on the Loss of Blood, p. 87.
‡ On the Diseases of Children, p. 108.

greater vascularity of the skin, too, the amount of blood lost by a leech, applied to a young subject, is much greater than in the adult, and it is frequently much more difficult to arrest the hemorrhage from it. The general effect, then, of leeching on the young subject, is much greater than in the adult. Hence it is that cases are so frequently occurring in which children die from leeching. Of this we have numerous cases on record. Dr. Christison says, "I have twice known children bleed to death in hospital practice, the nurse having labored under a common prejudice among their craft, that leech-bites cannot bleed too much."* Pereira states, that "in two cases of infants, I have seen exhaustion with insufficient reaction, consequent on hemorrhage after a leech-bite, terminate fatally."† Ryan says, "The loss of blood from a single leech-bite has caused the death of a child."‡

From the foregoing, then, it would seem, that although a child may bear the loss of certain quantities of blood, perhaps quite as well as the adult, when carried beyond this, they do not bear it so well, nor do they bear the repeated and continued loss of blood so well; and under these circumstances, dangerous and even fatal consequences are apt to ensue. In other words, bloodletting is an agent which operates with more power, and is attended with more danger in the child than in the adult.

If all this be so, then some conclusions may be drawn with regard to the practical application of this agent, which, to the young practitioner at least, may be of some importance.

1. Great caution should be exercised in bleeding children to the point of syncope. If the state of syncope be attended with the danger already alluded to, it is very certain that nothing can justify us in producing it, unless it be determined that it is essential to the management and cure of the case. Now, that in most cases, even of decided inflammation, it is not necessary to carry bloodletting to this extent, is very certain. We know that it is not so in the adult, and it evidently cannot be so in the child. As a general rule, therefore, it cannot be required. By some high authorities, however, it is supposed that under certain conditions of diseased action, the safety of the patient depends upon the production of syncope. Thus, for example, in

* Dispensatory, p. 492.
† Materia Medica, Vol. II., p. 769.
‡ Manual of Midwifery, p. 475.

croup, bleeding ad deliquium has been insisted upon by the late Dr. Bayley, of New York,* Dr. Dick, of Alexandria,† and Dr. Ferriar, of Manchester. The latter especially speaks of it as "the essential point of the cure, without which no relief can be effected."‡ If in any disease the practice be justifiable, it certainly is in this, and it cannot be denied, that in a great number of instances, it has been resorted to with safety. Notwithstanding this, general experience has abundantly established the fact, that even here it is not necessary, and that all the beneficially sedative effects of the remedy may be obtained without going to this extent. On this point there appears to be, at the present time, a pretty general concurrence of opinion among enlightened practitioners, and the rule of practice ought to be, *never* in any case to bleed to syncope, but to stop as soon as paleness of the lips and cheeks comes on. In this way, all the good of blood-letting is secured, while the risks of syncope are avoided.

2. To determine the precise amount of blood proper to be drawn, is a matter of much greater nicety, and involves more serious consequences in the child, than in the adult. In the adult, the loss of a little more blood than is necessary, as a general rule, is a matter of no very great consequence. In the child, on the contrary, it may prove fatal. In the adult, too, we have means of judging how far it ought to be carried, which we have not in the child. Thus, for example, the pulse, which in the adult is so valuable a guide in these cases, cannot be depended upon at all in the child. It is always, therefore, a very nice and difficult problem in practical medicine, how to adjust properly in a child the amount of blood necessary to be drawn, to the exact wants of the case. Now there are only two ways in which this can be done. The first is, by fixing upon a certain amount as suitable to different ages. The second is, to judge by the actual effects produced at the time of taking the blood. With regard to the first of these modes, it is evident that it must be a very unsatisfactory guide, if we recollect that no two constitutions are precisely alike, and that there is every difference in the capacity of different systems, even in the same disease, to bear the loss of blood. Then, again, the same disease exists in different degrees of violence, and of course requires a modification in the amount of de-

* New York Medical Repository, vol. 12, p. 331.

† Barton's Med. and Phys. Jour.

‡ Medical Histories and Reflections, by JOHN FERRIAR, M. D., p. 371. Am. Edition.

pletion. Besides all this, different diseases do not require, and cannot tolerate the same loss of blood. A general standard, then, founded upon the age of the patient, is really good for nothing, except as a mere approximation. In individual cases, it must be inapplicable. Hence it is, that all those standards laid down by authors differ so much from one another, and must necessarily do so. If blood be taken by *leeches*, the difficulty is still further increased, from the circumstance that the desired quantity can hardly ever be obtained with any degree of precision: if it is so, it is purely by accident. That this must be so is evident, if we recollect the variable quantities of blood drawn by the leeches themselves, and more especially the greater differences in the after-bleedings. It is not yet settled, I believe, exactly how much blood a leach will draw. Christison says, "Twice as much blood may be usually drawn by fomentations, as by the suction of the leech. A single leech, when applied successfully, may thus be held to draw from first to last, *about half an ounce of blood on an average.*"* According to Evanson and Maunsell, "the quantity of blood obtained by a good leech, allowed to bleed for half an hour, may be estimated *at one ounce.*"† Mr. Pereira says, "I believe *four drachms* to be the maximum. On an average, I do not think we ought to estimate it at more than *a drachm and a half.*"‡ i. e., the quantity taken by the leech itself, without reference to the after-bleeding. Now the fact is, it is impossible to specify the amount of blood drawn, either by the leech itself, or in consequence of the subsequent bleedings. Leeches differ in their size very greatly, and there must, of course, be a great difference in the quantity of blood they are capable of taking. Then, again, there is every difference in the after-bleedings, depending on the vascularity of the skin, the part of the body to which they are applied, and various other circumstances. From all this, it is evident how unsafe it must be to draw blood from a child according to any average standard.

With regard to the second mode, that of judging of the extent to which it should be carried by the effects produced at the time: in many cases this answers exceedingly well. In inflammatory complaints, where the full effect of the loss of blood may be necessary, the rule can be satisfactorily applied, and the best plan is to bleed in the erect posture,

* Dispensatory, p. 492.
† Practical Treatise on Children, &c., p. 106.
‡ Materia Medica, vol. 2, p. 769.

until pallor of the face comes on, without producing actual syncope. In the adult, according to Marshall Hall, the production of actual syncope constitutes the criterion as to the exact amount which the case requires, as well as of the capacity of the system to bear the loss of blood, and he therefore recommends this as the rule for the due administration of the remedy. Now, that this will not answer, must be obvious to every one. Every practitioner knows that cases are continually occurring, in which actual syncope comes on after the loss of a few ounces of blood, when large quantities are afterwards required to be drawn. In children, of course, the rule cannot be applicable. In them, the loss of so much blood as to bring on only approaching syncope might not only be unnecessary, but be attended with danger. From all this, then, it would appear that we are not in possession of any precise mode of determining how much blood ought in all cases to be taken in children; and this shows the necessity of great caution and the exercise of sound judgment, in the use of the remedy.

3. From the uncertainty in estimating the quantity of blood lost by leeches, and the dangers attending the loss of too much from them in children, too great caution cannot be exercised in their use. From the manner in which leeches are ordered by some physicians, in the disease of children, one would be led to suppose that no harm could ever result from them. From the ease, too, with which they may be prescribed, and the appearance of energy which it gives to the practitioner, it is to be feared that not unfrequently they are used without being actually necessary, and even when necessary, they are suffered to draw blood without sufficient regard to the quantity which may be lost. Now it should always be recollected, as already stated, that leeches operate differently on the child from what they do on the adult. In the latter, they are, in a great measure, local in their action, and may be, and generally are used, when general bleeding is contra-indicated. In the child, on the contrary, they act in the same way as general bleeding. Their sedative effects, therefore, upon the constitution of the child, are much greater; and if suffered to bleed beyond a certain limit, they endanger life. On these accounts it is more necessary to be cautious in the use of them in children, than in adults. It is not my intention to go into any particulars in relation to the mode of conducting the process of leeching. There are a few points, however, of a practical choracter, connected with this subject, which

may not be unworthy of notice. 1. When leeches are applied to a child, the patient should always be placed in the erect posture. The same rule, indeed, should be observed in whatever way blood is drawn. If it be a fact that leeches act like general bloodletting upon the child, the propriety of this rule must be obvious; and it is the more necessary to insist upon it, because it is hardly ever observed. As soon as any paleness of the lips or face appears, the child should be placed in the recumbent posture, and the bleeding arrested. 2. When leeches are applied to a child, the patient should never be left until the flow of blood is completely stopped. 3. Leeches should never be applied at bed-time, and suffered to bleed during the night. In this way, the patient has, in more cases than one, bled to death. If applied late at night, they should be watched just as in the day-time. 4. As a general rule, leeches should not be applied to soft parts destitute of support from underneath, in consequence of the difficulty of making pressure sufficient to arrest the hemorrhage. The importance of this was first noticed by Dr. Cheyne, who advises them to be applied in croup, not to the neck itself, but over the clavicle, sternum, or ribs.* 5. Leeches sometimes open into arteries and dangerous hemorrhage has ensued from this cause. A case of this kind happened, in which the temporal artery was thus opened, and Sir Astley Cooper was obliged to divide the artery before the hemorrhage could be arrested.† In all cases, therefore, the progress of the bleeding should be carefully watched.

4. If bloodletting be so profound a sedative to children, it is evident that it is capable of doing a vast deal of harm in cases unsuited to its use, and that it requires a very nice discrimination of the character of the case, before it can be used with safety. This may appear very commonplace; but, commonplace as it is, it is to be feared that it is not sufficiently borne in mind in actual practice. The presence of inflammation or congestion is generally considered a condition justifying and requiring a resort to bloodletting, and so indeed, as a general rule, it is; but it is not so universally. Thus, for example, the inflammation attending scarlatina does not usually require or bear well the loss of blood; and there can be no question that, in this complaint, many a child has been sacrificed by a resort to this remedy.

* Pathology of the Larynx and Bronchia, by John Cheyne, M. D., p. 57.

† Johnson's Med. Chir. Rev., Vol. 9, p. 71.

Then, again, symptoms analagous to those produced by inflammation or congestion result from a cause directly the opposite, viz: irritation or mere exhaustion. Illustrations of this we see frequently in affections of the head in children, convulsions, &c. In these cases, if the cause of the difficulty be mistaken, and depletion be resorted to, the result may be fatal. All this shows that, before bloodletting is used in children, the nature of the case should be investigated more nicely even than in the adult.

5. In the use of bloodletting in the young subject, especial regard should be had to their constitutions, as well as their mode of living. No principle is better understood, or ought to be so, even in adults, than that in the use of debilitating remedies, due regard should be had to the powers of the system. No practice is safe which does not take into consideration the relative capacity of the system to bear them; otherwise the remedies may be more fatal than the disease for which they are prescribed. Now we know that in the adult there is every difference in this respect. In the management of the same disease accordingly in different individuals, a very different course of treatment is necessary, if not in the remedies themselves, at least in the extent to which they are carried. In the young subject this is still more necessary. Children whose constitutions are naturally feeble and vicious, or have been enfeebled by debilitating causes, such as poor diet, confined air, &c., sink very readily under the influence of depressing remedies. In these bloodletting is badly borne, and should never be resorted to unless absolutely necessary, and then in moderate quantities.

6. Great caution should be exercised in the repetition of bloodletting. After what has been already said in relation to the effects of repeated bloodletting on the young subject, I should not again allude to it, were it not to notice the opinions of an eminent authority. Dr. Rush, in his "Defence of Bloodletting," makes the following statement: "I could mention many more instances in which bloodletting has snatched from the grave, children under three or four months old, by being used three to five times in the ordinary course of their acute diseases."* That the children alluded to by Dr. Rush survived this treatment I do not doubt; but that these repeated bloodlettings were necessary I can hardly believe. At any rate, a practice like this, if

* Med. Obs. and Inqs., vol. 4, p. 300.

generally adopted, would, in my humble opinion, end in the most disastrous results.

In concluding this paper, I trust that it may not be thought that I am opposed to bloodletting in the diseases of children. The physician who discards this agent, understands but poorly his profession or the duty which he owes his patients. The proper use of a remedy, however, is one thing, the abuse of it is another; and I must express the opinion, founded on no small observation, that it is frequently resorted to in children when it is unnecessary—when necessary, it is often carried too far—and that in its general use, there is frequently an absence of precision and care, which in many cases renders it a most dangerous remedy. With regard to the use of bloodletting generally in this country, there can be no doubt that the authority of Dr. Rush has exerted an influence the most deleterious. That it should have done so is not surprising. Living at a time when medicine was yet in its infancy among us—at the head of the oldest and most influential of our medical schools, and attracting by his enthusiasm and his eloquence a large proportion of the students of the country, his sway for a series of years was unlimited, and his sanguinary precepts and his still more sanguinary practice*

* To justify the language used above, and which may be considered too strong by some, let me make a quotation or two from Dr. Rush's celebrated "Defence of Bloodletting." "Bleeding should be continued while the symptoms which first indicated it continue, should it be until four-fifths of the blood contained in the body are drawn away." Med. Obs. and Inq. vol. 4, p. 353. The amount of blood in an adult is estimated at about 32 lbs. Four-fifths is over 24 lbs.

Again, in enumerating the advantages of bloodletting, he says: "In cases where bleeding does not cure, it may be used with advantage as a *palliative* remedy. Many diseases induce death in a full and highly excited state of the system. Here opium does harm, while bleeding affords certain relief. It belongs to this remedy in such cases, to save pain, to relieve convulsions, to compose the mind, to protract the use of reason, to induce sleep, and thus to smooth the passage out of life." Med. Obs. and Inqs., vol. 4, p. 357. In other words, if I understand him, one of the advantages of bleeding is, that it makes persons die easily! This reminds me of a melancholy case which I once witnessed. A young gentleman, about eighteen years of age, had been suffering about three months under organic disease of the brain. During this period he had been subjected to every kind of treatment. Bloodletting, emetics, cathartics, mercurials, tonics, &c., had all been used in succession, but without arresting at all the progress of the disease, and he had now become stone blind, was paralytic, and reduced to the extremest state of emaciation and debility. In short, he was barely kept alive by the use of stimulants. In this state of things a friendly doctor happened to drop in, and expressed the opinion that the disease was inflammation of the brain, and that a good bleeding would relieve him. Notwithstanding the urgent remonstrances of the attending phy-

were speedily diffused from one end of the country to the other. Although sad experience has long since exposed the fallacy, as well as the danger of his doctrines, yet many of the evil consequences of them are still to be met with; and not the least of these, it appears to me, is the opportunity which they have, indirectly at least, afforded for the prevalence of quackery. It is a part of our nature to fly from one extreme to another. When an error is once exposed, we are apt to go immediately to its opposite, inferring that what is the reverse of wrong must necessarily be right; and so it has been in regard to bloodletting. The public having been made acquainted with the evils of the practice of Dr. Rush, a prejudice, if not general, at least very extensive, has been created against the remedy itself, and empirics, always ready to play upon the weaknesses and prejudices of the community, have seized upon it for the mere purposes of traffic. Accordingly, the land is now filled with a set of men who pretend to practise medicine, without resorting, not merely to bloodletting, but many of the other remedies sanctioned by long and tried experience. And what is melancholy, but true, they find a ready sympathy in a large portion of the community. Whether I am too severe in attributing the popular empiricism of the day to the influence of Dr. Rush, must be left to the judgment of the profession. One thing, however, is very certain, and which we see illustrated every day. Whenever a person has been overtaxed with active medicine, he is apt to discard all belief in medicine generally, and he is then ready to fall into any absurdity. It is with medicine as it is with religion. Superstition once thrown off, infidelity follows, and the result in both cases is the same. Calm reflection and rational inquiry are out of the question, and boasted independence speedily becomes the easy prey of the knave and the empiric.

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2. *Medical Staff of the United States Army.*—The medical corps of the army has gained unfading laurels, not only by devotion and courage in the strict line of their profession

sician, that the result would be almost immediate death, the idea took with his friends, and he was bled by the doctor who suggested the practice. As might have been expected, in about six hours he was a corpse, and the great consolation seemed to be that he died so easily! Verily, on becoming acquainted with such practice, one would be tempted to believe that the Emperor Nero must have been a very tender-hearted man in condemning Seneca to so pleasant a mode of terminating his existence as bleeding to death. For the particulars see the Annals of Tacitus, Book 15, Sec. 60.

but also, when occasion offered, of using the sword as well as the amputating knife. Among many instances of great gallantry, we may mention that of Assistant Surgeon Roberts, who, in the thickest of the fight at the storming of Molino del Rey, meeting with a company, all of whose officers had been cut down, placed himself at its head, and received his death wound whilst leading the men to victory. —*Medical News and Library.*

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3. *Epidemic Cholera.*—This epidemic is steadily advancing westward, by the same route which it pursued in 1831, and at the last accounts had reached Central and Southern Russia. Without counting Georgia, Caucasus, and the country of the Cossacks of the Black Sea, it already reigns in sixteen governments. On the 30th of October it broke out at Moscow. The disease has also broken out anew in Persia. Three cases are said to have occurred at Paris; two of these did not present any very characteristic symptoms, but in the third there were cyanosis, rice-water dejections, &c.—*Ibid.*

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4. *A Case of Four Children at a Birth, complicated with hemorrhage.* By Mr. John M. Donnell, Student of Medicine in the University of Louisville.

On the 6th of February last, I was called to visit Mrs. D., whom I found laboring under an attack of pneumonia. The disease yielded to active treatment, convalescence being established in the course of five or six days. On my first visit I was informed that the patient was six months advanced in utero-gestation; from her unusual size, I was led to suppose that her confinement would probably take place in less than a fortnight.

After she recovered, I heard nothing from her until the 31st of May, when I was called to visit her. On my arrival I learned that one child was already born—a foot presentation; but on examining the patient, I found that there was another, and that the right shoulder was the presenting part. I ruptured the membranes, turned, and delivered by the feet. Another pain ensued in a short time, and a third child was delivered—a vertex presentation. At this period an alarming hemorrhage took place, for which I administered a large dose of tincture of ergot, and, being compelled to consult the safety of the mother, tied and divided the cords. Fortunately for my patient, the hemorrhage ceased very soon, and by the time it had done so I

was satisfied of there being still another child, and that the vertex was presenting. I ruptured the membranes, expecthat the child would be speedily delivered; but after waiting for a pain and making a second examination per vaginum, I found the right hand had descended before the head. This I immediately returned, and the uterus being stimulated to a vigorous action by the introduction of the hand, the head was thrown from the brim of the pelvis, and descended as in a natural presentation, the child being born in a short time. Hemorrhage again took place to a considerable extent at this stage, but on the administration of another dose of ergot, and the use of friction over the abdomen, uterine contractions came on, and the flooding ceased.

After waiting about fifteen minutes, one of the placentas was thrown off, to which were attached three of the umbilical cords; it was very large, having on its fœtal surface two distinct chambers. After waiting nearly an hour longer, I was under the necessity of introducing my hand and detaching the second one from near the fundus of the uterus; the attachment was slight. Tonic contraction of the uterus occurring, my patient was put to bed in safety, but, as might be expected, very much exhausted. She recovered rapidly, and, when I called to see the children, three weeks afterwards, was able to attend to her household duties. It may be proper to remark that the first child floated in its own waters, and likewise the last; the second and third floated together.

The following is the weight of each child, taken in the order of birth: 1st, a girl, 6 pounds; 2d, a girl, 4¾ pounds; 3d, a girl, 2¼ pounds; 4th, a boy, 6½ pounds, making in all 19½ pounds. The children were all well formed, and five weeks after birth were living and hearty. The mother is thirty-three years of age, and is the mother of ten children, including the last four. The father is a robust man, about forty years old.

Postcript.—Since writing the above, I have learned that the smallest child died about five weeks after its birth, probably from overfeeding.

Franklin, Illinois, Nov. 5, 1847.

MEMORIAL TO CONGRESS.

The great importance to the profession of Medicine, and to the afflicted who are subjects of treatment, of the matter contained in the following memorial to Congress, will,

we hope, induce physicians generally to copy, procure signatures to, and forward it to their respective Representatives and Senators in Congress.

The proceedings of the New York College of Pharmacy in our last number, under the head of "Adulterations of Medicine," sets forth more fully the important necessity of some action on this behalf.

It is respectfully suggested that the Medical Societies in their organized capacities, might do much towards forwarding the objects of the memorial, which we take from the *N. Y. Journal of Medicine.*

[MEMORIAL.]

To the Honorable the Senate and House of Representatives:

The Memorial of the College of Pharmacy, of the City of New York, respectfully represents:

That large quantities of sophisticated and misnamed Chemicals and Pharmaceutical preparations are daily imported, not only to the injury of the Custom House revenue, and of the honest importer, but of dangerous effect upon the health and lives of all who require the aid of medicines such as they purport to be, throughout the country.

That with some unprincipled foreign manufacturers, aided and abetted by dealers of a kindred stamp in this country, it is a regular and systematic business to make different qualities of various medical preparations for the American market—the better kinds for the Atlantic cities, and others very much inferior "for the West," meaning thereby, our Western States. The latter are generally altogether unlike what they purport to be, are quoted at about half prices, and are unfit for any use whatever.

That of an almost indefinite number of spurious and misnamed articles, may be specified Iodide of Potassium, for which the Bromide is substituted, in whole or in part, and other salts, of an entirely different character, are also mixed in large proportions.

Blue Pill comes to us containing from 10 down to 7½ per cent. of Mercury, (the officinal proportion being 33⅓ per cent.) mixed with blue clay and Prussian blue, to give it density and color—the following being the composition, by the analysis of our Professor Reid, of a lot which passed the Custom House about the first of August.

Mercury, - - - -	7·5
Earthy clay, - - - -	27·0
Prussian blue, used in coloring, -	1·5
Sand in combination with the clay, -	2·0
Soluble saccharine matters, -	34·0
Insoluble organic matters, - -	12·0
Water, - - - -	16·0
	100·0

Very large quantities of Rhubarb, much decayed, the better parts of which are dark colored, with scarcely any taste or smell, having probably been exhausted to make extract, come from England, invoiced there from 1½ to 3 pence sterling per lb.—entirely worthless trash. It is intended and used for powdering, color being given to it by tumeric, etc.

The article called Oxyd of Zinc on the English labels, is generally *Carbonate* of Zinc, being imported at a price which precludes the possibility of honest preparation.

All that is received under the name of Milk of Sulphur, except small lots expressly ordered from some manufacturing establishment of honorable character, contains from 80 to 95 per cent of Sulphate of Lime, (Plaster of Paris.)

Many of the foreign Extracts are not what they purport to be, and are entirely worthless as medicines.

Opium is often invoiced at one third the value of good quality, and is found upon examination not to be worth even that. The same may be said of Scammony.

The Essential Oils generally, the Salts of Quinine, Morphine, and all the more costly chemicals, are greatly adulterated.

These are some of the most important that come to us from abroad. Upon them the Physician depends, in many cases, for his success in controlling disease, we need hardly say, with frequent disappointment, the sufferings of the sick being protracted, other complications of disorder allowed to supervene, and life itself often sacrificed.

That numerous instances frauds, of the kind here spoken of, have been publicly exposed in the newspapers, by the authority of this College. Such exposures have undoubtedly proved of excellent service, so far as related to each particular fraud published and the extent reached by the publication, but this unpleasant and burthensome duty is greatly inadequate to the correction of the evil.

Your memorialists therefore pray your Honorable Bodies

that a law may be enacted, declaring that all imported articles intended for medical use, which may appear to the proper Custom House Officer to be spurious, counterfeited, or adulterated, shall be subject to competent inspection, and if found to be of base character, confiscated and destroyed.

And your memoralists, &c.

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Baptistæ Tinctoria.—DEAR DOCTOR: The following being scarcely worth a place as a separate article in your Journal, will answer as a note to your article on the *Sophora Tinctoria.*

Respectfully yours,
JAMES FOUNTAIN.

Taking a deep interest in the Medical Botany of my native country, I presume the following rough sketch will not be uninteresting to my fellow country physicians.

The plant commonly called Indigo Weed, the Baptista, or Sophora Tinctoria of Linn., grows so abundantly all over the country, is so easily recognised, and possesses such active properties, that it is not a little surprising that it has received so little attention.

About 30 years ago Dr. Thatcher noticed the plant in his Dispensatory, as being useful in cases of gangrene from deficiency of vital power, and in some other affections proceeding from the same cause.

In June, 1837, I was called to see Jacob Post, æt. 74, of an infirm habit. He had been a free liver, but was infirm from age, and was troubled with almost constant diarrhœa. He had a large purple patch on his leg, just above the outer ankle of his left leg. His foot was cold. He was not feverish, nor otherwise seemingly more indisposed than usual. He had no pain in his leg or foot, but only a slight soreness. In a few days his foot was spotted over with similar patches, and finally they all coalesced. The cuticle shortly pealed off, and the whole foot was covered over with a soft, black, grumous coating.

Warm stimulants and astringents were freely used externally, and tonics and opiates internally, but to no purpose; the gangrene spread gradually but slowly upwards, so that by the end of the month his leg as far up as the middle of the calf, had become one putrid mass, with no cognisable line of arrest, but gradually loosing its aspect upwards.

His leg had now become so intolerably offensive, that I

determined to remove it, to rid the family of the insupportable stench, for I had not entertained the least hope of saving his life.

On the 4th of July, my son amputated the leg below the knee. On removing the dressing, I found the surface of the stump, as I had anticipated, black enough. I now determined to try the indigo weed. I made a strong decoction of the fresh root, and with this I washed the part freely, and had the dressing wet continually. The gangrene soon spread up under the integuments, forming cavities and short sinuses. Into these I injected the decoction twice a day, freely.

The medicines administered internally were a decoction of oak bark with a few drops of laudanum, and a pretty free use of his favorite drink, brandy. Suffice it to say he finally recovered, and enjoyed excellent health and spirits something over three years, and finally died of influenza.

Another case of a Mr. Merrit, was on hand a few miles distant, almost precisely to this, in a subject about as old, but of a better constitution. Finding my case doing well his attendant amputated his leg, but it did not save him. He used only the means recommended in surgical works generally, but did not use the Tinctoria.

Since then a similar case on the back of the hand, and on one finger, came under the care of my son, of a very threatening aspect. It yielded to the Tinctoria similarly used.

Several minor cases have occured in my practice, tending to strengthen my confidence of the great value of the plant. Its activity has, as yet, prevented my using it internally. It doubtless possesses tonic, stimulant, and astringent properties in great activity, especially in its green state.

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7. *Chloroform—A Substitute for Ether.*—To the Editor of the Boston Medical and Surgical Journal:—Dear Sir,—Prof. Simpson, of Edinburgh, has lately published a pamphlet upon the use of chloroform as a substitute for ether, in preventing the pain of surgical operations. A friend sent me a copy the day it was published, and I have experimented with the article before the students of the Baltimore Dental College. Although the tests have not been complete, as indeed they could not be in the few trials of a new agent in the use of which it was necessary to acquire dexterity and exercise prudence, I am satisfied that chloroform is much superior to ether, and not liable to similar

objections. I send, with this, a proof sheet of the American Journal of Dental Science, containing Dr. Simpson's account of this new agent.

Very respectfully yours.

Baltimore, Dec. 19, 1847. C. A. HARRIS.

P.S.—Since the above was written, I have had another opportunity of testing the anæsthetic properties of chloroform in a very difficult operation, and with complete success. C. H. A.

[The sheet alluded to above has been received. We have space this week only to say, that chloroform is the perchloride of formyle—formyle being, in chemical language, the hypothetical radical of formic acid, which latter is obtained from the red ant, and also latterly from sugar, starch, and indeed most other vegetable substances.—*Bost. Med. and Surgical Journal.*]

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8. *Chloroform Inhalation.*—Mr. Editor,—A letter received by the last steamer from Dr. W. J. Little, Surgeon of the London Hospital, and the well-known founder of the Royal Orthopedic Institution, contains, with other interesting medical intelligence, important information concerning the employment of a new agent for producing insensibility during surgical operations, and in obstetric cases. This new agent, which it appears is exciting much attention among the English Surgeons, is chloroform, a substance first discovered by Soubeiran in France, and at nearly the same time by Liebig in Germany. Its introduction, however, to the medical public as an anæsthetic agent, is due to Professor Simpson, of the Edinburgh University, who has published the result of his experience. The following extracts from the letter to which I have referred, and from Professor Simpson's pamphlet, for which I am also indebted to Dr. Little, contain the most important items relative to this subject. Dr. L. states in his letter that he has tried and has witnessed the trial of chloroform, and from his experience thus far feels prepared to say that "the facility and rapidity with which the effect is produced, the absence of annoyance to the inhalers and bystanders, the tranquil manner in which a person who has inhaled recovers from the state of insensibility, and the length of time he remains insensible, even after inhaling the chloroform only thirty to thirty-five seconds, give it prominent advantages over ether." Among other advantages which Dr. Simpson affirms this compound to possess over ether, are—"its having an agreeable fragrant, fruit-like odor, and a saccharine

taste; that a much less quantity of chloroform is required to produce the anæsthetic effect, usually from 100 to 120 drops of chloroform only being sufficient, and with some patients much less. I have seen," he says, "a strong person rendered completely insensible by six or seven inspirations of 40 drops of the liquid. Its action is more rapid and complete, and generally more persistent. I have almost always seen from ten to twenty inspirations suffice. Hence the time of the surgeon is saved, and the preliminary stage of excitement is practically abolished. Its perfume is not unpleasant, but the reverse, and the odor of it does not remain for any length of time obstinately attached to the clothes of the attendant, or exhaling in a disagreeable form from the lungs of the patient. No sickness, vomiting, headache, salivation, uneasiness of chest in any of the cases. Being required in much less quantity, it is much more portable than sulph. ether." The above extracts I send you without comment, as of course it is too early to form an opinion, and will only add that I have employed a chemist to prepare a quantity of this article, with which it is my intention to institute a succession of experiments.

Boston, Dec. 27, 1847. BUCKMINSTER BROWN.
—*Ibid.*

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9. *Result of Experiments in Boston with Chloroform.* To THE EDITOR,—SIR:—From your apparent interest in the success of my discovery for the alleviation of pain in surgical operations, I have ventured to lay before the readers of your Journal, a condensed account of Prof. Simpson's method of producing insensibility, also the formula for the preparation of the compound used by him, together with the result of his experiments, all of which he kindly forwarded to me by the last steamer, with an acknowledgment of the merit attached to my previous discovery of the application of sulph. ether. The result of his experiments I was resolved to test immediately, and being out of health myself, I called upon Dr. D. R. Smilie, a person of some reputation in chemical science, and invited him to my laboratory. He politely assisted me in preparing and administering the chloroform, (the name given to the new compound) also in observing its peculiar effects upon the system. As we were about to apply heat for the distilling from the mixture of the following formula—chloride of lime, one part; aqueous solution, one part; rectified spirit, one twelfth of a part—a patient opportunely arrived for the purpose of inhaling ether, and having three teeth extracted

under its operation. With a little trouble she was persuaded to remain until there was a sufficient quantity of chloroform distilled for the experiment. After inhaling ether and allowing its effect to pass away, about one ounce of chloroform was put upon the sponge previously freed from the effect of sulph. ether, and administered by the usual method. In order to contract this communication as much as possible, we have purposely avoided the details of the case. The teeth were extracted without the knowledge of the patient, and we would say the effects were similar to those produced by ether.

Yours respectfully

Saturday, Dec. 25, 1847. W. T. G. MORTON.

—*Ibid.*

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10. *Typhus or Ship Fever.*—The following extract from observations by John H. Griscom, M. D., in the New York Hospital, which we take from the *N. Y. Journal of Medicine*, will be found interesting, as the disease of which the author speaks, is attracting much attention. E.

The *treatment* of this disease was based upon the idea of its proximate cause being *mainly* a vitiated, deficient and innutritious condition of the blood. I say *mainly*, because I have no particular theory as to the real nature of the disease, whether produced by a specific poison entering the system from without, as is maintained by some, or by a partial decomposition of the blood by others, or by a disorganization of the solids by a third party, etc. The most important point in my estimation to be considered, being its treatment, I have been disposed to look chiefly at its *remote causes*, and to endeavor to ascertain from a contemplation of them, what is required to overcome their effects.

The remote causes are two in number: 1st, an insufficiency of food, and 2d, the inhalation of a vitiated air. The first of these must necessarily produce an exhausted nutritive condition of the blood;—that fluid, under a protracted privation of nutriment, will not only be diminished in quantity, but its red globules, it is reasonable to suppose, will become deficient in number and in those properties which are believed necessary to the health of the organism. Both these consequences are aggravated and increased by the second cause; for in the atmosphere of the steerage of a passenger ship, crowded to the utmost limit of the law, there must necessarily, one may easily believe, be not only

a deficiency of oxygen, but an actual presence of other gases, whose chemical action upon the blood cannot but be deleterious, depriving it still further of its healthy properties.

I may be told that this brief view of the causes and character of ship fever is insufficient to account for the *febrile symptoms*,—that there is nothing in starvation, or want of oxygen, or the presence of deleterious gases, to produce *fever*. If any one who should raise this objection to the insufficiency of my position will tell us *what fever is*, I might then be able to discover a connection between it and the causes I have named. Until the *specific* nature of fever is demonstrated, it is in vain to argue about the nature of its causes, or to endeavor to trace the modus operandi of the influences which are supposed to produce it. But if we are to understand by fever, the frequent pulse, hot skin, thirst, etc., etc.,—then I answer, that ship fever, as it has been presented to us this year, is in many instances not a fever at all. Repeatedly have we seen patients brought from on ship board without a single symptom of fever, with pulse below the natural standard, skin moist and cool, fauces not dry, no thirst, and yet the body covered with petechiæ, the eye congested, the senses benumbed, and most of the other symptoms of the *Typhus condition*.

Confining our attention to this simple view of the causes of Ship Fever, we find little else to do than to counteract their effects. The means for this are clearly indicated, and may be classed under three general heads.

1st. To maintain the continuity of the body, and sustain its nervous energy, by stimuli, until we are enabled,

2d. To improve the quantity and character of the blood by appropriate nourishment, and

3d. To oxygenize the blood thoroughly by pure air.

For the first indication, after giving a warm bath, (an invariable rule where it could be borne,) the most powerful and direct stimulants were found necessary. Brandy and carbonate of ammonia consiitute the main reliance; and during my attendance I have been astonished to observe what enormous quantities of these remedies will be borne in this disease. As an instance, I may mention the case of a girl about fifteen years of age, who took about 5 pints of brandy every day for 5 days, and for two weeks longer from 2 to 3 pints daily. At the same time she was taking 10 grains of carb. ammonia every 15 minutes, amounting to two ounces in twenty-four hours, besides soup and other nutriments. And all this without the least manifestation

of excitement, or injury to the stomach or bowels, such was the intensity of the disease. She was under this treatment nearly three weeks, before any very decided symptoms of improvement were manifested; unfortunately, before time elapsed to observe the ultimate result in this case, and just as she was beginning to feel the good effects of the treatment, the patient had to be discharged "relieved," being removed from the Hospital by her parents. Many other cases might be cited, in which it was necessary to continue, night and day, to ply these remedies unceasingly;—a very short respite was frequently sufficient to put the patient back decidedly, and a vast number of the cures were undoubtedly due to the faithfulness with which these means were applied. Where the circulation was unusually languid, or the extremities were cold, sinapisms, and artificial warmth were very valuable.

To answer the second indication, the patients were fed at frequent intervals with nutritious soups, arrow root or gruel, with wine or brandy, milk punch, egg-nog, beef, chickens, etc. etc.

Upon the third indication, pure air, I may remark, that on several occasions the necessity for it was strongly marked. The pressure for admissions several times became so urgent, that the bounds of prudence were quite overstepped, as was indicated by the fact that in certain of the wards which were most crowded, and contained the worst cases, the recoveries became more protracted, and the relapses more frequent. It became necessary to close two of the wards in the north building, and to have them thoroughly cleansed and purified. After this operation, and on confining the number of patients in them to a reasonable limit, a decided improvement was manifested in the rapidity of recoveries and convalesence. The position of a patient's bed in a ward, was observed to have an influence over his treatment. In the corners of the rooms the patients got along more slowly than in the central parts, or near the doors or windows;—and I frequently found that when a patient had been lying for several days in a part of a ward most distant from the windows, and was not doing well, a removal of his bed right under a window, would, in twenty-four hours, produce a decided change in the symptoms for the better.

Although this was the general course of treatment, it was frequently varied to suit the condition of the patient. Occasionally a case would present a degree of excitement, with hot and dry skin and thirst, which called for the spirit

Mindereri, ice in the mouth and to the head, and the mildest diet; sometimes gastric irritation with nausea would demand a mild emetic, such as an infusion of euper, perfol. If the pain and heat of the head were marked, dry cups to the temples, or forehead, or blisters behind the ears, and application of ice, would generally be found sufficient. Pneumonic symptoms with cough frequently complicated the case; when these occurred, Stoke's expectorant, with dry cups, or vesication of the chest, formed the principal addition to the other treatment.

Sometimes there would occur such a combination of general prostration external heat and dryness, as to indicate a combined stimulant and febrifuge treatment; such, for example, as the administration of carb. ammon.; or a half ounce of brandy, alternately every hour or two hours, with a half ounce of spirit. Minder.; and so frequent and sudden were the changes, in many instances, from one condition to the other, an almost constant watching was necessary to withhold the one or the other, and again resume it. In fact, the varieties and shades of symptoms were almost infinite, and called for an endless variation in the means of relief. To enumerate them would take more time and space than could be reasonably asked. There were many cases, however. for which no other treatment was necessary than good diet and cold water. Cleanliness, pure air, and food, appeared all-sufficient for the removal of the disease, even in well-marked cases, not a particle of medicine being administered to them.

Local Complaints.—A tendency to Erysipelas prevailed in some of the wards during the whole of my attendance. No exact account has been rendered of the number of Typhus cases in which it occurred, but they probably amounted to about 20. It attacked the face and head in every instance. Its treatment did not vary from that required under ordinary circumstances, except so far as the Typhoid condition of the patient required. Cooling applications to the part affected, with internal stimulation, constituted the general course, with complete success in every instance but one, who died from the Typhus fever, his condition from the first having been desperate. One case will justify more detailed notice. It was that of a nurse, who contracted the fever from his patients; he recovered, and returned to duty; in two weeks he had a relapse, from which he recovered slowly, and soon after getting to duty again, had a second relapse, accompanied with Erysipelas in the face and head. The frequent attacks of the fever had so reduced him, that

now, with the Erysipelatous complication, it seemed almost in vain to prescribe for him, especially, when in a few days the most serious symptoms of all occurred, viz: great heat of head and evident congestion of the brain, attended with delirium and total unconsciousness. His eyes were entirely closed by the swelling of the integuments, the tongue was dry and black, the pulse frequent and feeble. A more hopeless combination of circumstances could hardly be imagined. Depletion, even local, from the head, was totally forbidden by the prostration; and stimulation by brandy, and carb. ammon., while contributing to sustain the general strength, seemed to add to the difficulty in the head. In this posture I resolved upon the exhibition of a remedy, which I am not aware has been before tried under similar circumstances. He was directed to have *five grains of Hydriodate of Potassa every hour.* The effect of this (supposing the "post hoc" to be the "propter hoc") was magical, for in 24 hours there was a decided diminution of the cerebral congestion, and the patient rapidly recovered. The remembrance of the efficacy of this remedy as a deobstruent in certain conditions of the brain in children, especially in hydrocephalus, both the true and stimulated form, induced the hope of obtaining a similar usefulness from it in the case I have mentioned. Further observations, it is hoped, will test its efficacy in the same condition of the adult brain.

Dysentery was also a frequent complication of the fever, and a majority of the deaths which occurred in the latter part of my service, were produced by it. The force of the disorder fell so frequently upon the intestinal canal, as to assume an endemic character in the month of September; and the occurrence of this complication, accompanied as it generally was by purulent bloody stools, was justly dreaded.

Some of the cases which, at the outset, threatened most seriously, yielded to treatment; but it would seem, judging from the post-mortem appearances, and the rapidity with which the patients sank, that the disorganization must, in many cases, have proceeded to an incurable degree before our attention was called to it by the patient. This was chiefly owing to the anomalous fact, that, even in some of the severest forms of the dysentery, there was little or no pain evinced.

The degree of disorganization of the mucous coat, in those cases which were post mortemed, was most extraordinary, surpassing, in many instances, anything before within my experience. In some cases not a trace of

healthy mucous membrane was discernible in the large intestine, from the ilio-cœcal valve to the anus; but from every point blood, or mucus, or pus, appeared to have been discharged, clearly demonstrating the utter incurability of the disease. Copious deposits of lymph-like matter were seen, forming *bas-relief* patches, and giving the idea, without close observation, of ulceration at the intermediate points. In one particularly severe case, the entire mucous coat of the colon bore a resemblance to the rough bark of a tree, the elevations of the new deposits were so great and uneven. The color in this case was greenish.

When this complication was diagnozed sufficiently early, the administration of Tannin, and nit. argent., both by mouth and enemata, opiates, blisters, and bland diet, frequently diminished the force of the disease, and sometimes with a successful issue; but the impossibility of direct applications to the ulcerated surfaces, and the necessity of dependence on general treatment for local disease, placed this disorder amongst the most dreaded.

When *Diarrhœa* formed the principal complication, the great sheet anchor was opium. This rarely failed to keep it in check, if administered to a sufficient extent. It was sometimes prescribed in conjunction with tannin, one to three grains of the latter, from three to twelve times a day, or with nitrate of silver, $\frac{1}{4}$ to $\frac{1}{2}$ a grain every 2, 4, or 6 hours, according to the severity of the symptom: but generally opium alone was found sufficient, while it seemed to have a happy effect, also, upon the febrile symptoms. Held in abeyance by the opium, the diarrhœa, as the general disease abated, and the strength improved, would gradually disappear.

One case of typhus was complicated with pregnancy of about four months. The patient aborted, but the uterus had not sufficient power to expel the secundines. No hemorrhage ensuing, and the patient being too much prostrated to endure any direct treatment for their removal, they were left, and were retained five days, when they were spontaneously expelled, and the patient recovered in the ordinary time.

Delirium, which was a frequent complication, was usually controlled by cups or blisters to the temporal and mastoid regions, and by the exhibition of morphine or Dover's powder. Large doses of these sedatives were borne with entire impunity, and the most happy effects. In two cases, (young females) the mind continued to be disturbed so long

after recovery, as to give rise to apprehensions of confirmed insanity, but they happily recovered perfectly.

There were several other complications, such as jaundice, laryngitis, &c., but being only isolated cases, require no special notice.

The following tables prepared from the books, exhibit the results of the treatment of typhus:—

Cases remaining June 30th - - -	134
Admitted in July - - - - -	100
" August, - - - -	126
" September, - - - -	107
Whole number cases of typhus in three months,	467

Of these there were discharged,

	Cured.	Relieved.	Disorderly.	Request.	Died.
In July,	128	1	1	2	14
In August,	108			3	13
In September,	94			1	19
	330	1	1	6	46

Whole No. cases typhus discharged,	384
" " " remaining Oct. 1st.	83
Per centage of cures,	85.93
" " relief	2.10
" " deaths	11.97

In a considerable number of instances, however, in which the result was fatal, death was attributable not directly to typhus fever, but to some other disease, which made its onset in the enfeebled state of the patient during convalescence; so that the ratio of deaths from typhus alone would be materially less, amounting, perhaps, to 8 or 9 per cent.

Especially was this the case, as already stated, in September, when dysentery prevailed endemically, and was the immediate cause of death in many cases of typhus, but in which the fatal result is assigned to the credit of the latter disease, on the books. One of the deaths recorded as by typhus, entered the Hospital with a *fifth attack of delirium tremens*, from which he recovered; but before being discharged, being subjected to the prevailing infection, he gradually sank, though with hardly sufficient character of typhus to be added to the list. There are probably very few persons capable of surviving five severe attacks of mania à potu.

The whole number of *Autopsies* in the three months (of typhus) was		10
The head was the principal part affected in	1	
The chest	1	
The head and abdomen both	6	
Nothing special was found in	2	
	—	10
Peyer's plates were prominent in	4	
" " ulcerated in	2	
	—	
	6	

In every case where the bowels were affected in either of the ways specified, the membranes of the brain were congested, or there was free serous effusion, or both.

In one case in which the plates of Peyer were prominent, they were enormously large—some of them near the end of the ilium, exceeding 6 inches in length.

There were two other autopsies of persons who had been entered as cases of Feb. Remit., but the description of which leaves room to doubt whether they had not the typhus infection. In one, the membranes of the brain were congested, and there was bloody effusion. In the other there was effusion in the cranium, and the liver was enlarged, congested, and bronze.

PART IV.—EDITORIAL.

ARTICLE I.

RUSH MEDICAL COLLEGE AND THE NATIONAL MEDICAL ASSOCIATION.

At a meeting of the Faculty of Rush Medical College, on the 3d of January, 1848, the following preamble and resolutions were unanimously adopted.

Whereas, a National Medical Association has been organized for the purpose of advancing the interests of the Profession, whose recommendations have thus far been generally judicious and worthy of adoption; therefore

Resolved, That the Faculty recommend to the board of Trustees the creation of a Chair of Physiology and Pathology and to increase the number of Professors to seven, and that a course of Medical Jurisprudence be added to those now given in this Institution.

Resolved, That attendance upon a Hospital during one session, and the pursuit of disections for twelve weeks shall be required of all candidates for graduation.

Resolved, That we stand ready to comply with the remaining resolutions of the Association, so soon as they shall be generally adopted by the medical schools of the West, or when it shall be apparent that the interests of the Profession require it.

The following persons were then appointed delegates to attend the meeting of the National Association, at Baltimore on the first Monday of May, 1848, ——, ——.

Remarks.—In adopting the above resolutions, the Faculty are going but little beyond what they had already done before the organization of the National Association. They had already procured a full and separate course on Physiology. In regard to dissecting, there was little occasion to render it imperative, for so great are the facilities, and such is the attention devoted to this branch, that more than half the class are usually occupied during the lecture term in the dissecting room. At the Hospital, visits are made

daily, and the number in attendance is only limited by the difficulty of getting access to the bed side, and the class in attendance is divided into sections, which succeed each other. As, however, this seems not to be the practice elsewhere, we have made obligatory what was before done from choice.

In regard to the recommendation that the student should be required to study three years, lecture terms included, this was already among the requirements of Rush Medical College. So in relation to the adopting of means to ascertain whether students are in attendance upon the lectures; leaving them is so little practiced, that it is not thought necessary at the present time to take any action upon it.

The lengthening the lecture term from four to six months, which is one of the recommendations of the Association, was taken into consideration, but it was regarded as a question upon the propriety of which, doubts might be entertained. The lectures are now given sixteen full weeks without devoting one to introductories at the commencement and another to examinations at the close of the term, and it was thought best to make the increase gradually, by first adding two weeks in order to ascertain whether students would be able to attend longer than sixteen weeks. Action on the question was deferred until correspondence could be had with other medical schools. In the mean time, in order to give such students as are disposed to do so, the opportunity of attending a longer term than the present, a practical course on Clinical Medicine and Surgery, and a course on Anatomy and Physiology during the months of March and April, will be given. If a large proportion of the Winter's class can be induced to attend, it will afford strong encouragement for lengthening the term to six months.

D. B.

ARTICLE II.

GALVANISM IN UTERINE HEMORRHAGE.

We have received a communication from Dr. C. F. McNeill, of Concord, Ind., giving the result of his experience, in the application of Galvanism in exciting contractions of the uterus in profuse hemorrhage from that organ.—His manner of applying it is "to introduce the positive pole of a small portable electro-magnetic machine to the os uteri and place the negative pole upon the abdomen, immediately over the fundus of the uterus, and then regulate the electrical current as circumstances seem to require." He says, "the result is immediate and firm contraction of the uterus." As this fills the great indication of cure in cases of hemorrhage following delivery, we cheerfully comply with the request of our friend "by bringing the subject to the favorable notice of the profession." He also suggests the propriety of its application in labor.

The remedy was highly recommended by Dr. Radford, of England, about four years ago, but does not seem to have attracted much attention. He recommends it in hemorrhage before as well as after delivery of the child, and either before or after the delivery of the placenta.

From the powerful and certain influence of moderate currents of electricity, in producing muscular contraction, we would be led to the conclusion à priori that it would form one of our most reliable remedies in an affection that depends upon the relaxation of an organ so decidedly muscular in its character, as the uterus.

But when to its philosophy we have added the test of actual experience in its favor, without a single argument against it, is it not the part of wisdom, nay of duty, to use it?

The cases in which we conceive it more particularly applicable are those in which the hemorrhage follows delivery, as there can here be no danger of injuring the child, which is not certainly the case prior to delivery. In such cases we can see only one obstacle to its becoming our most common and most popular remedy, which is the difficulty of

being always prepared with the battery. Certainly in a country practice it would be a great inconvenience for the physician to go prepared with the machine, especially as he might not find occasion to use it once in a long time, for the purpose, and unless he has it with him, the case will frequently terminate fatally, or be relieved by other remedies before he can procure it.

But in city and hospital practice, it must, if future observations corroborate those already made on its use, soon become the main dependence in the treatment of the cases of uterine hemorrhage above referred to, when the ordinary means fail.

There is one other thought in connexion with the subject, that occurs in consequence of the philosophy of the action of galvanism, in exciting muscular contraction, and our ability to apply it to any part we may desire, by placing the poles of the battery on opposite sides of the part through which we desire it to pass, which is that in cases of irregular contraction of the uterus, whether of the cervex, the hour-glass, or the contraction of the circular fibres without that of the longitudinal, from which forms fatal consequences often result, a current of electricity may excite the relaxed fibres to contraction, and produce the necessary equilibrium of action.

Again, we make the suggestion, that our professional brethren may, if occasion should offer, act on it, that when the placenta is retained by morbid adhesions to the uterus, violent contractions, such as may be excited by electricity, may cause its detachment and expulsion, which certainly would be far preferable to the painful and always dangerous operation of introducing the hand and separating it with the fingers. And in cases of abortion where the ovum is retained for a considerable time after its death, may not currents of electricity, passed through the uterus, promote its expulsion?

Another idea occurs, which is that in those cases of debility, always attended by a greater or less degree of relaxation of the uterus, where the lochial discharge continues too

long after labor, the passage of currents of electricity may stimulate the organ to a more rigid condition, and thus check and arrest the discharge and afford relief.

And yet another idea;—is it not probable that currents of electricity passed through the uterus, energizing the muscular structure, and consequently, by continuity, the whole organ, may prove highly advantageous in chronic uterine leucorrhœa?

We hope these suggestions may prove useful in directing the attention of the profession to the application of galvanism in the various conditions suggested, and that we shall hear from those who may make a trial of it, by a report of their experience and observation for our pages. E.

ARTICLE III.

QUACKERY.

The attention that has been paid to this subject of late, and its importance, render it one of much interest. In a late number of the Journal, we noticed some legislative enactments in reference to the profession, and amongst other things, the law passed by the legislature of Maine for the suppression of nostrum vending, which required that all compound medicines sold in the State should be accompanied with a label, setting forth in full the ingredients of which they were composed, and the proportions of each, under certain penalties.

Here was a poser. But notwithstanding the shrewdness of Yankee law-makers, and their laudable designs to suppress the villanous practice of vending secret compounds as "king cure all," still the Yankee quacks soon found in the Chinese language a means of complying with the conditions of the law, without divulging their secrets to those not learned in that oriental tongue.

The legislature, finding, in their first attempt to suppress nostrum vending, that they had failed, instead of remedying the defects of the law foolishly repealed it; as much as to say "we give it up."

There was a principle involved in this law, or in its spirit, which we believe to be the true cure for the great traffic in nostrums. If the public knew the composition of the various patent and secret syrups, pills, electuaries, plasters, unguents, linaments, &c., &c., of which they annually in the United States consume millions of dollars worth—no, not *worth*, (for many of those bearing the highest price are intrinsically worthless,) but an amount which costs them millions, the trade would almost immediately stop, as it is the mystery that gives them currency, and completing the deception enables the quack to sell his aloes, that costs not to exceed 25 cents per pound, for at least ten times that amount, and molasses, worth 50 cents per gallon, when mixed with a little paregoric at one dollar per gill.

We shall hope to see the States generally try to protect the public, by requiring the composition of every medical compound dispensed within their limits, to be intelligibly set forth, so that when a patient takes physic, he may know something of the propriety of the bill he has been charged for it by his apothecary.

This, too, would be a good remedy for the nefarious practice we see alluded to by our cotemporaries, as practised between apothecaries and physicians on patients, in many of the larger cities of the United States, and, we fear, to a greater extent than is yet generally suspected, by which the physician receives a per centum on all prescriptions sent to the apothecary's shop, which influences him to prescribe larger quantities and frequently to change his prescriptions.

Now there is something so reasonable in this requisition, that few, if any, of the intelligent will fail to approbate it, unless interested against it. What, oppose the passage of a law that requires the salesman to tell the purchaser what it is he is selling to him?

Nor would the public be particularly opposed to knowing what composes Brandreth's pills or Wistar's Balsam of Wild Cherry, et omnes genii, for they are not aware of the certain result—that it would rob them of almost all of their virtues.

The following from our esteemed correspondent A. W. Benton, M. D., contains some original suggestions on the subject, and we cheerfully insert them. E.

ANTIDOTE FOR QUACKERY.

Quackery as a cause, and gullibility as its effects, I believe have generally been treated by the faculty of well bred and honorable physicians with moral and intellectual remedies, with how much success the "thousand and one" advertisements in the newspapers, and parade of show bills and nicely labelled bottles will tell.

The cause, I consider entirely beyond the reach of moral remedies. When there is no conscience, moral remedies will have no effect. The *effects* of quackery I fear will seldom yield to intellectual remedies alone, but if backed up by proper physical means it is possible they might succeed. I have long been of the opinion that some means might be devised to lessen, if not entirely suppress the sale of the ten thousand quack medicines now offered for sale in every store, tavern, grocery, and doggery throughout the length and breadth of our land. People will have some domestic remedy to apply in cases of slight indisposition, rather than send for a doctor for every trifling ailment, and I am not sure but it is right they should have. The only apology I know of for the quack is, that the community is not supplied with medicine from any other source.

The plan I would suggest is to put in operation such measures as will supply the community with a sufficient number of some of the cheapest and safest medicines, (either officinal preparations or other compounds with the ℞ attached,)to fill the place of the quack medicines.

With a modest advertisement, setting forth their value, stating that they are the remedies approved by the most eminent medical men in both Europe and America, and laid down in the standard works on medicine. Also stating that if these medicines fail to cure, and they are compelled to send for a physician they have the advantage of the Dr's. knowing what they have been taking, and consequently is better enabled to know what medicine to give next; whereas if they use quack medicine, he does not always know whether the patient is sick in consequence of the medicine taken, or something else.

With such a recommend would they not compete with the quack nostrums now in vogue? And would it not be well for every Medical Society, to put in operation such

means as would supply the district of country over which their influence extends, with a well selected number of common remedies in sufficient quantity to meet the demand? We know that many of the quacks amass princely fortunes from the profits of their sales, and it does seem to me, that the community might be supplied with medicines of known efficacy without a hazard of life.

I would suggest this plan for reflection, to be acted on as judgment, matured by deliberation, may dictate.

Sterling, Jan. 1848. A. W. BENTON.

ARTICLE IV.

ON THE CURE OF SPINA BIFIDA BY INJECTION OF THE TINCTURE OF IODINE.

This disease and malformation not only constitute one of the most distresing affections to which infants are subject, being attended often with incontinence of the urine and fœces, paralysis of the lower extremities and idiocy, but is also according to the best authorities, and indeed is shown by general experience to be incurable, with few and rare exceptions. For if in the annals of surgery there are to be found a certain number of successful cases, yet when considered with reference to the whole number occurring, it will be seen at once that no plan of treatment yet proposed affords more than feeble chances of success.

Of these methods of treatment, it is not a little singular that the one which consists in evacuating the fluid more or less perfectly should have been generally adopted, notwithstanding that the evacuating of serous fluid by puncture in every other situation is generally found to aggravate the disease. In this case it is liable to prove fatal by removing the necessary compression on the central organs of the nervous system. If the method has sometimes succeeded, it was from the inflammation induced by repeated punctures checking effusion and producing absorption, and not by any means from evacuating the fluid, which only gives it a greater tendency to increase. This danger and that which results from ulcerative inflammation at the point of puncture, on a tissue like the covering of this species of tumor should pro-

hibit its performance. We were led to these views from reflecting on a case of Spine Bifida in the Chicago Hospital, in a girl said to be 13 years of age, in whom the tumor was situated at the top of the sacrum, being nine inches in circumference and about three in height, with thin walls. This girl had been paralytic in the lower members, but within three years had acquired a partial use of them. She was idiotic, and passed both the fœces and urine without regard to place. From neglect of cleanliness, numerous ulcerations and large cicatrices had, from time to time, been formed upon the pelvis and thighs.

Under these almost hopeless circumstances I determined to inject into the sac a solution of Iodine, with a view of exciting inflammation and procuring absorption. This was done on the 2d Dec. 1847, in the following manner: A small puncture was made with the lancet on the sound skin about half an inch from the base of the tumour and a trochar of the size of a common knitting needle carried obliquely into the sac. Through the canula of this a solution of gr. j. of Hyd. Potass. with gr. ss. of Iodine in f. 3i. of water, was thrown into the sac and the instrument withdrawn. A sharp pain followed which soon subsided. Compresses and a bandage were applied to prevent the escape of the fluid, and the child was laid in bed. There succeeded redness, heat and tension of the tumor with tenderness to the touch and some febrile symptoms, for which a cathartic was administered and evaporating lotions applied to the part. In the course of a week these symptoms subsided, and the tumor became soft, yielding, and diminished in size. Compression by means of a roller around the pelvis was then applied, and kept up with as great degree of force as could be borne, but the filthiness of the patient and her indocility prevented this from being applied with regularity. It was frequently removed for twelve hours or more at a time. Still it diminished, and on the 27th Dec. was about half its former size.

At this time a second injection was used of half the strength of the first. This produced but little heat or pain

and the compression was continued. On the 15th Jan. 1848, the fluid was so far absorbed as to render it easy to press it down almost to a level with the surrounding skin. A spring truss was then substituted, and at the present time the sac lies in wrinkles, the bony opening can be distinctly felt, and there is no increase of swelling when the pressure is removed. Recently there has been manifested a decided improvement in the intellect of the child, the other difficulties remain the same, but with the removal of the cause the partial paralysis will doubtless gradually disappear. The retention of the natural evacuations must depend upon the development of the intelligence, and the gaining of a control over the voluntary muscles. In its present condition, this case shows that the injection of a solution of iodine, followed by suitable treatment, is capable of curing an ancient case of Hydrorachitis, and (so far as a single case can be taken as a guide,) with but little danger. Further experience will be required to determine the strength and quantity of the medicine to be used, the frequency of the repetitions, in younger subjects than this, it is obvious that the dose employed should be not more than a fourth of that used at first in this case.—To those who would deem such a proceeding extremely hazardous, we would remark that a number of facts have within the last few years come under our observation, tending to show that serous membranes are, when filled with serum, much less disposed to inflammation than when in a healthy state. Experiments are required to show which among the astringent and stimulating fluids can be brought in contact with them with least danger, meanwhile the safety with which solutions of Iodine may be thrown into the large articulations, into the sac of a congenital hernia, and in some instances into the peritoneum, and in this case into the arachnoid membrane, will free us from the charge of presumption in suggesting that it, or some other solution, may be worthy of trial in those cases of Hydrocephalus, ascites and hydrotharax, which are hopeless under ordinary treatment.

D. BRAINARD.

ARTICLE V.

INTRODUCTORY LECTURES.

We have received introductory Lectures, delivered the present Session by Professors Lawson and Harrison, of the Medical College of Ohio, Professor Drake of the University of Louisville, and Professors Dunglison, Mitchell and Mütter, of the Jefferson Medical College of Philadelphia, all published by the class, indicating quite an increase in this branch of medical literature, which generally corresponds to its poetry, being designed to please as well as to instruct.

Professor Lawson's is full of poetry of thought and language, the evident emenation from an active energetic mind.

Professor Harrison's treats of the "state and prospects of the Medical profession." He sees in the signs of the times much to encourage, and refers to the moral as well as intellectual improvements that are being made.

He approves of the multiplication of Medical Schools, when in a proper location and properly organized, as affording many great and important advantages to the progress of the profession, and in repressing quackery. It is a good address and shows well the bright side of the picture of the profession.

Prof. Drake's is truly, as its title proclaims, "strictures on some of the defects and infirmities of intellectual and moral character in students of medicine," and is applied to his class in groups (leaving the members to arrange themselves according to the lines marked out,) of which there are eleven, which severally receive "their portion in due season."

Group 1st. is composed of the gifted, and the 2nd of third course students, who are advised to beware lest they relax their efforts in consequence of ability and advantages—the 3rd, practitioners—the 4th, of those who are without due preparation—the 5th, of those who are under the necessity of going to practice before completing their studies—the 6th, of those too intent on practical matters—the 7th, of the mentally incompetent—the 8th, of those who lack punctu-

ality—the 9th, of those fond of social conviviality—the 10th, of the dissipated, and the 11th, of the bullies and desperadoes, who severally are shown up in that masterly manner peculiar to the author, and are encouraged, advised, admonished, reproved or *scathed*, as their several cases seem to demand ; and the address closes with a few reflections on the defects that are common to them all. It is sound, practical, strong and clear, such as we always have a right to expect, when we see Dr. Drake's name on the cover.

Professor Dunglison's is a learned history of the healing art, and correctly points out the use to be made by the man of science, of the 'isms, 'pathys and nostrums, by waiting until the mystery is removed, and appropriating to his own use, all the valuable that can be gleaned from amongst the dross. He commences by a few preliminary remarks, in which he refers to that "largest class" that had ever assembled in the United States.

Professor Mitchell after the preliminary reference to the prospects of the school and the "largest class that ever presented itself before a medical teacher on this side of the Atlantic," speaks at length in reference to, and seems to oppose, the lengthening of the terms of our college sessions, and winds up with quite a eulogy upon the profession in America. It is rather desultory, the author, Quaker fashion, not having taken a text to preach from ; showing however, that he is a clear thinker and a fluent writer.

Professor Mütter's, is devoted to the consideration of the qualifications necessary for the successful prosecution of the art. In the first place he shows the necessity for a good physical constitution, then of a thorough education, and shows the tendency of our science to expand the mind, citing that a large number of the most distinguished names on the scroll of fame, in almost all departments of intellectual greatness, are from the ranks of our profession. He shows the power of persevering industry in its strongest light, and closes with an exhortation to "strict morality and virtue" It is one of the best.

We are sorry our limits will not allow us to furnish a more extended notice of those pleasing and instructive evidences that our professional brethren are both actively laboring and highly appreciated. E.

THE IOWA FARMERS' ADVOCATE.

We are in the receipt of this spirited monthly, from Burlington, and hope it receives, as it deserves, an extensive patronage. It costs $1 per annum, and the farmer will find it to be a very profitable investment. E.

UNION MEDICAL SOCIETY OF NORTHERN INDIANA.

We received from Dr. P. Henkle, Corresponding Secretary of this spirited Association, an abstract of the proceedings of its meeting, at Benton, held on the 2d Tuesday of November last, too late for their insertion in the proper place.

Dr. W. J. Matchett read a paper on the subject of the use and abuse of calomel, which was ordered to be sent to this Journal for publication. Dr. M. M. Latta was appointed delegate to the National Medical Association. The next meeting is to be held at Goshen, on the second Tuesday of May next. E.

CHLOROFORM.

Several operations have been performed, by Prof. Brainard, with very satisfactory results, upon patients while under the influence of this new agent for producing insensibility to pain, which Prof. Blaney manufactured in the College Laboratory. E.

OBITUARY.

Dr. WAINWRIGHT of New York died recently from the bite of a rattle snake which had been sent to him as a curiosity, by a brother-in-law from Alabama.

Recent European news announces the death of LISTON, the eminent English, and Diefenbach, the great German surgeons.